

*Mojave Desert*  
Air Quality Management District

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*Certification of  
District Measures to Reduce PM  
Pursuant to Former  
Health & Safety Code §39614(d)*

Receive and File  
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## List of Acronyms

BACM	Best Available Control Measure
BACT	Best Available Control Technology
BARCT	Best Available Retrofit Control Technology
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
FCAA	Federal Clean Air Act
H&S Code	California Health & Safety Code
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
NO <sub>x</sub>	Oxides of Nitrogen
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter, less than or equal to 10 micrometers
PM <sub>2.5</sub>	Particulate Matter, less than or equal to 2.5 micrometers
RACM	Reasonably Available Control Measure
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO <sub>x</sub>	Oxides of Sulfur
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compounds

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## ***Certification of District Measures to Reduce PM Pursuant to Former Health & Safety Code §39614(d)***

### **I. EXECUTIVE SUMMARY**

In 2003, the Legislature enacted H&S Code §39614 (SB 656, Sher), to reduce public exposure to PM10 and PM2.5. H&S Code §39614(d) required the California Air Resources Board (CARB) in consultation with local air pollution control and air quality management districts (air districts), to develop and adopt, by January 1, 2005, a list of the most readily available, feasible, and cost-effective control measures that could be employed by CARB and the air districts to reduce PM10 and PM2.5 (collectively PM). On November 18, 2004, CARB adopted *Proposed List of Measures to Reduce Particulate Matter – PM10 and PM2.5* to satisfy the initial requirements of H&S Code §39614.

H&S Code §39614 also required that by July 31, 2005, air districts to adopt an implementation schedule for the most cost-effective local measures from this list. The MDAQMD prepared the *List and Implementation Schedule for District Measures to Reduce PM Pursuant to Health & Safety Code §39614(d)* to meet the requirements of H&S Code §39614(d) by analyzing each control measure on the Local PM Measures List.

H&S Code §39614 expired by its own terms on January 1, 2011. Pursuant to the requirements of H&S Code 39614(i), the District is now preparing a report to show the actions taken by the District to comply with this section. No further action was required of the PM Measures identified in Table I and Table 2 of the *List and Implementation Schedule for District Measures to Reduce PM Pursuant to Health & Safety Code §39614(d)*. Tables 3 and 4 required subsequent evaluation for those CARB measures identified. The *Certification of District Measures to Reduce PM Pursuant to Former Health & Safety Code §39614(d)* will show that those District Rules identified meet the requirements of the H&S Code.

### **II. STAFF RECOMMENDATION**

Staff recommends that the Governing Board of the Mojave Desert Air Quality Management District (MDAQMD or District) receive and file the *Certification of District Measures to Reduce PM Pursuant to Former Health & Safety Code §39614(d)*.

### **III. TECHNICAL DISCUSSION**

#### **A. SCOPE OF REPORT**

The District prepared the *List and Implementation Schedule for District Measures to Reduce PM Pursuant to Health & Safety Code §39614(d)*. In this document, the District evaluated the list of CARB measures and divided them in to 4 categories (Tables 1-4). No further action was required of the PM Measures identified in Table 1 (PM Measures Currently Implemented) and Table 2 (PM Measures for Which there are No Sources within the MDAQMD). Table 3 (PM Measures to be Analyzed and Potentially Implemented within the MDAQMD) and Table 4 (PM Measures Requiring Further

Evaluation) required subsequent evaluation for those CARB PM measures identified. Table 4 also includes some measures that required additional cost effectiveness analysis that is specific to the MDAQMD to determine if the implementation of such measures is feasible. In addition, the MDAQMD committed to updating the last two categories as part of any planning documents for PM and whenever a cost effectiveness analysis has been completed.

The *H&S Code §39614(d) Certification* will show that those District Rules identified meet the requirements of the H&S Code.

## B. PM MEASURES TO BE ANALYZED AND POTENTIALY IMPLEMENTED WITHIN THE MDAQMD

The following measures were identified in Table 3 of the *List and Implementation Schedule for District Measures to Reduce PM Pursuant to Health & Safety Code §39614(d)*. An explanation for how the District satisfied each measure follows the item *in italics*:

### 1. CARB Measure 13 – Prohibition of Residential Open Burning

CARB Measure 13 requires a prohibition of open burning to particular activities. MDAQMD Rule 444 – *Open Outdoor Fires* currently restricts open outdoor burning to a list of particular types of activities and requires burn permits for such burning activities. The list of activities and the circumstances under which the activities are permitted need to be re-evaluated to determine if they are sufficient to properly manage burning within the MDAQMD. Therefore, the MDAQMD will re-evaluate this measure in conjunction with a proposed rule amendment for Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*Rule 444 was most recently amended 09/25/06. This amendment has the same general requirements for permitted and exempted burning activities as referenced Rules (SJVUAPCD Rules 4103 – Open Burning and 4106 – Prescribed Burning and Hazard Reduction Burning). Rule 444 is more stringent than the referenced rules in several provisions for residential open burning. The District also has a Smoke Management Program to ensure compliance with agricultural and prescribed burning.*

*MDAQMD Rule 444 complies with this measure.*

### 2. CARB Measure 14 – Prohibition of Burning, Waste Service Available

CARB Measure 14 requires a prohibition of open burning of green waste when waste disposal service is available. MDAQMD Rule 444 – *Open Outdoor Fires* currently does not provide this restriction. The nature and extent of green waste disposal service varies quite widely within the MDAQMD. Thus, the economic effect of this requirement will need to be analyzed on a sub-regional basis to

determine if it is economically effective to include it in Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*Rule 444 was most recently amended 09/25/06. Rule 444 subsection (C)(2) specifies that no person shall “set, permit, or use an Open Outdoor Fire for the purpose of disposal or burning of petroleum wastes; asbestos; treated wood; demolition or construction debris; residential rubbish; garbage or vegetation; tires; tar; trees; wood waste; or other combustible or flammable solid, liquid or gaseous waste; or for metal salvage or burning of motor vehicle bodies.” This MDAQMD rule requirement is more stringent than the suggested measure, not allowing residential burning regardless of availability of waste disposal service.*

*MDAQMD Rule 444 complies with this measure.*

### 3. CARB Measure 15 – Prohibition of Burning, Highly Populated Areas

CARB Measure 15 requires a prohibition of residential burning in certain highly populated areas. MDAQMD Rule 444 – *Open Outdoor Fires* currently does not provide this restriction. The MDAQMD’s population density varies from virtually unpopulated to relatively urban. Thus, the economic effect of this requirement will need to be analyzed on a sub-regional basis to determine if it is economically effective to include it in Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*SMAQMD Rule 407 exempts certain incorporated and unincorporated areas. There is no methodology presented in either the rule or accompanying staff report providing a rationale for determining the inclusion or exclusion of incorporated or unincorporated areas, either by population, topography, meteorological conditions, socioeconomics, or other basis. Rule 444 was most recently amended 09/25/06. Residential burning is generally not allowed in the MDAQMD pursuant to Rule 444 subsection (C)(2) which specifies that no person shall “set, permit, or use an Open Outdoor Fire for the purpose of disposal or burning of petroleum wastes; asbestos; treated wood; demolition or construction debris; residential rubbish; garbage or vegetation; tires; tar; trees; wood waste; or other combustible or flammable solid, liquid or gaseous waste; or for metal salvage or burning of motor vehicle bodies.” SMAQMD Rule 407 prohibition specifies that open outdoor fires not be allowed for the burning of refuse or organic waste. This measure is consistent with MDAQMD rule provisions, regardless of population.*

*MDAQMD Rule 444 complies with this measure.*

### 4. CARB Measure 16 – Prohibition of Burning, Small Lots

CARB Measure 16 requires a prohibition of residential burning on small lots with minimal set back from the burn. MDAQMD Rule 444 – *Open Outdoor Fires* currently does not provide this restriction but the local fire officials routinely enforce a similar provision in the local fire codes. The average lot size for a

single-family home, even in the relatively urban areas of the MDAQMD, is rather large. The economic impact of this requirement will need to be analyzed in relation to the average lot size and the urban density of particular areas. The MDAQMD will analyze this measure for economic cost effectiveness and determine if it should be included in Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*Rule 444 was most recently amended 09/25/06. This measure was not analyzed for economic cost effectiveness because upon further review, it is noted that Rule 444 subsection (C)(2) specifies that no person shall “set, permit, or use an Open Outdoor Fire for the purpose of disposal or burning of petroleum wastes; asbestos; treated wood; demolition or construction debris; residential rubbish; garbage or vegetation; tires; tar; trees; wood waste; or other combustible or flammable solid, liquid or gaseous waste; or for metal salvage or burning of motor vehicle bodies.” Tree wood waste, brush cuttings and tumbleweed burning may be allowed, but setbacks and clearances are determined by local fire protection agency and only allowed by approved burn permit. It is not expected or usual for small lots to have accumulations of such materials that require burning. All urbanized areas where small lots would be typically found are serviced by waste collection service.*

*MDAQMD Rule 444 complies with this measure.*

5. CARB Measure 17 – Prohibition of Burning on High Ozone and PM Days

CARB Measure 17 requires a prohibition of non-agricultural open burning on predicted high ozone or PM days. MDAQMD Rule 444 – *Open Outdoor Fires* already provides such a limitation. However, the MDAQMD will re-evaluate this limitation for effectiveness during the planned amendment activities for Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*Rule 444 was most recently amended 09/25/06. Rule 444 subsection (C)(3) disallows open outdoor fires when prohibited by applicable Regulation VII Rules, including Rule 704 – Episode Criteria and Rule 708- Second Stage Episode Criteria. The District Smoke Management Program also prescribes conditions that are permissive for burning. The District relies primarily on CARB to provide daily burn day decisions.*

*MDAQMD Rule 444 and other District rules and guidance documents provide compliance with this measure.*

6. CARB Measure 18 – Limit on Burning in Smoke Sensitive Areas

CARB Measure 18 requires a limit on burning in smoke sensitive areas. The MDAQMD does not appear to have any areas which meteorologically appear to be overly sensitive to smoke emissions other than on predicted high ozone or PM days. However, the MDAQMD will evaluate this limitation for cost effectiveness

during the planned amendment activities for Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*CCR Title 14 §1561.1 defines a Smoke Sensitive Area as “a populated area, an airport, a traveled road or highway, areas designated Class I for visibility standards, or any place where smoke can adversely effect [sic] the public health and welfare.” MBUAPCR Rule 438 specifies that burning shall not commence when wind direction should blow smoke towards a smoke sensitive area or populated area which would be adversely affected by the smoke. The MDAQMD Smoke Management Plan does address permission to burn to ensure there are no exceedances of Air Quality Standards or significant adverse smoke impacts to smoke sensitive areas. Burn authorization requests take into account meteorological conditions. The Smoke Management Program is implemented through Rule 444.*

*MDAQMD Rule 444 and the Smoke Management Program documents as amended 09/25/06 provide compliance with this measure.*

#### 7. CARB Measure 19 – Emissions Limits for Mechanized Burners

CARB Measure 19 requires an opacity limit of Ringelmann 1 (20% Opacity) on mechanized burners. This requirement is already included in MDAQMD Rule 401 – Visible Emissions. However, the MDAQMD will evaluate whether including it in Rule 444 is advisable. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*Rule 444 was most recently amended 09/25/06. This provision was not added to Rule 444 at the time of amendment, but mechanized burners are not exempt from permitting pursuant to Rule 219 – Equipment Not Requiring a Permit. Permit requirements would include opacity requirements as contained in Rule 401. Rule 401 limits are designated as No. 1 on the Ringelmann Chart for a period or periods aggregating more than three minutes in any one hour. This limit is more restrictive than Shasta County AQMD Rule 2.6 §(b)(3) referenced in the measure.*

*Other MDAQMD District rules provide compliance with this measure.*

#### 8. CARB Measure 20 – Drying Times for Green Waste

CARB Measure 20 requires minimum drying times for green waste to be burned and sets limits on time of day for ignition and completion of burns. MDAQMD Rule 444 – *Open Outdoor Fires* requires drying of material and limits ignition times. The MDAQMD will re-evaluate this limitation for effectiveness during the planned amendment activities for Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*The District committed to re-evaluate drying times and pile size as contained in BAAQMD Regulation 5. The majority of the recommended provisions in this measure are completely met either with MDAQMD Rule 444 provisions, or those*

*contained in the District's Smoke Management Program. Differences noted were for dry times, the specific location of the initiation of ignition, and limits of pile size/dimensions. The Mojave Desert Air Basin is classified as a dry-hot desert climate, with portions classified as dry-very hot desert. The Bay Area exhibits typically wet winter/dry summer meteorological regime. The dry times contained in the Rule 444 are consistent and appropriate for the different meteorological conditions of the MDAQMD. Ignition and pile sizes are all regulated by local fire code and enforced through burn permit provisions.*

*Rule 444 was most recently amended 09/25/06. MDAQMD Rule 444, the Smoke Management Program documents, and the burn permit program provide compliance with this measure.*

#### 9. CARB Measure 21 – Burn Duration Limits

CARB Measure 21 requires ignition hour limitations and that smoldering fires be fully extinguished. MDAQMD Rule 444 – *Open Outdoor Fires* currently limits ignition times. The MDAQMD will re-evaluate this limitation for effectiveness during the planned amendment activities for Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*Rule 444 ignition hour limitations are consistent and appropriate with the meteorological conditions of the MDAQMD. Rule 444 also requires drying and combustion to promote a minimum of smoke production and rapid combustion.*

*MDAQMD Rule 444 complies with this measure as is consistent and appropriate in the MDAQMD.*

#### 10. CARB Measure 22a – Burn Pile Requirements

CARB Measure 22a requires specific burn pile parameters. MDAQMD Rule 444 – *Open Outdoor Fires* currently sets a variety of parameters for burn piles. The MDAQMD will re-evaluate this limitation for effectiveness during the planned amendment activities for Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*Rule 444 was most recently amended 09/25/06. Rule 444 Section (6) Rule 444 requires rapid combustion, proper arrangement for rapid burning, drying and combustion to promote a minimum of smoke production and material composition allowed for burning. Rule 444 is more stringent than MaCAPCD Rule 304 burn hour provisions. Public nuisance is covered under MDAQMD Rule 402 – Nuisance.*

*MDAQMD Rule 444 and other District rules provide compliance with this measure.*

## 11. CARB Measure 22b – Land Clearing Requirements

CARB Measure 22b requires specific prohibitions on land which is being cleared for commercial development. MDAQMD Rule 444 – *Open Outdoor Fires* provides minimal restrictions on such burning. The MDAQMD will re-evaluate this limitation for effectiveness during the planned amendment activities for Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*Rule 444 was most recently amended 09/25/06. MDAQMD Rule 444 Section (8) requires a burn permit for wood waste from trees, vines, or brush on commercial and residential property. Rule 444 further specifies the burning must occur on the property the waste originates. Substantively, this requirement is consistent with the proposed measure given that the rule requirements and burn permit process covers pertinent aspects of the measure.*

*Due to the desert nature of the majority of the MDAQMD, there is not a problem with proliferation of poison oak or the burning of poison oak. Rule 444 – Open Outdoor Fires, does require the minimization of smoke production (§(C)(6)(b)), Rule 402 – Nuisance, covers public nuisance, Rule 208 – Permit for Open Burning, requires a burn permit, and Rule 219 – Equipment Not Requiring a Permit, allows APCO discretion for permits or processes.*

*MDAQMD Rule 444 and other District rules provide compliance with this measure.*

## 12. CARB Measure 23 – Permits for Open Burning

CARB Measure 23 requires that all open burning be conducted under a permit. MDAQMD Rule 444 – *Open Outdoor Fires* provides this requirement. However, the MDAQMD will re-evaluate this limitation for effectiveness during the planned amendment activities for Rule 444. The MDAQMD plans to amend Rule 444 on or before February 27, 2006.

*The District requires a burn permit or a smoke management plan for all but exempted activities. These exempted activities include recreational fires, ceremonial fires and cooking fires where the combustible material is clean, dry wood or charcoal. This measure references NCUAQMD Rule 201 which requires residential cooking and recreational fires to be performed with a valid Coordinated Burn Authorization Permit. Due to the geographic size and boundaries of the District, as well as the diverse land use uses of the District, requiring a burn permit for residential cooking and ceremonial fires is infeasible and unenforceable.*

*Rule 444 exemptions also include backfires necessary to save life or valuable property pursuant to California Public Resources Code §4226. As these fires are set by a fire protection agency in emergency circumstances, the requirement for a burn permit would be a superfluous and regulatory imposition.*

*Rule 444 was most recently amended 09/25/06. The MDAQMD has determined that current Rule 444 exemptions from burn permits are justified and warranted.*

### 13. CARB Measure 24a – Earthmoving Soil Stabilization

CARB Measure 24a requires soil stabilization, limitation of visible dust emissions, and a dust control plan for areas greater than 40 acres where it is intended that more than 2500 cubic yards of earth moved on at least 3 days. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain similar requirements. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*Rule 403.1 – Fugitive Dust Control for the Searles Valley Planning Area and Rule 403.2 – Fugitive Dust Control for the Mojave Desert Planning Area both have soil stabilization requirements and limit visible dust emissions to less than Ringelmann No. 1 (403.2 §(B)(33), Rule 401 – §(a)).*

*Rule 403.2 has a threshold of 100 acres (403.2 §(C)(3)) for submission of a dust control plan, but by APCO discretion and written policy, a dust control plan is required at a significantly lower threshold for solar projects (at least one megawatt installed capacity on one acre in size), residential developments, and other earthmoving activities.*

*The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide. The proposed rule includes provisions for a DCP for residential developments greater than 10 acres, non-residential development greater than 5 acres, or a project that will include relocating more than 2,500 cubic yards per day of bulk materials on at least 3 days. These proposed rule requirements will be more stringent than the listed 40-acre threshold in the listed measure (SJVUAPCD Rule 8021).*

*Current and proposed MDAQMD Rules adequately address the contents of this measure.*

### 14. CARB Measure 24b – Earthmoving Visible Dust Emissions

CARB Measure 24b requires a prohibition of visible dust emissions, best available control measures, and a dust control plan for large operations that disturb more than 100 acres of surface areas or move more than 10,000 cubic yards of earth. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain requirements regarding visible emissions and dust control plans. The MDAQMD will re-evaluate this measure for cost effectiveness and

feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide.*

*Rule 403 prohibits VDE beyond the property line as suggested in this measure.*

*Measure 24b suggests an upwind/downwind PM10 differential of below 50 µg/m<sup>3</sup> as contained in SCAQMD Rule 403. SCAQMD Rule 403 contains provisions to implement BACM based on attainment status. MDAQMD is a RACM District. MDAQMD Rule 403 §(c) provisions are adequate.*

*SCAQMD Rule 403 Requires BACM Measures for all active operations as contained in SCAQMD Rule 403 Table 1. MDAQMD has several, but not all, of the BACM measures of Table 1. MDAQMD is a RACM District. MDAQMD Rule 403 §(c) provisions are adequate.*

*SCAQMD Rule 403 contains additional measures in Table 2 for projects over 50 acres or any earthmoving operation with a daily earth-moving or throughput volume of 5,000 cubic yard or more three times during the most recent 365-day period. SCAQMD 2004 amendment requirements such as signage are contained in current MDAQMD dust control plan guidance document language, and will be implemented as part of proposed Rule 403 when adopted. MDAQMD requires RACM provisions, and proposed Rule 403 will implement RACM dust control requirements as are reasonable and cost effective within the MDAQMD.*

*Current MDAQMD Rules adequately address the contents of this measure as RACM.*

#### 15. CARB Measure 25a – Demolition Dust Suppressants

CARB Measure 25a requires a prohibition of visible dust emissions to 20% opacity and provides bulk material and track-out requirements. MDAQMD Rule 403 – *Fugitive Dust* prohibits visible dust emissions beyond the property line in most circumstances. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain requirements on bulk material handling and track-out. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rule 401 – §(a) limits visible dust emissions to less than Ringelmann No. 1 and requires precautions to prevent trackout § (d). Rule 403.1 addresses predominately industrial facilities and unpaved roads, and sets trackout cleaning requirements determined to be relevant and enforceable for this environment. Rule 403.2 requires cleanup of trackout within 24 hours.*

*Current MDAQMD Rules adequately address the contents of this measure as RACM.*

#### 16. CARB Measure 25b – Demolition Visible Dust Emissions

CARB Measure 25b requires a prohibition of visible dust emissions beyond the property line, specifies upwind and downwind concentrations and provides track-out requirements. MDAQMD Rule 403 – *Fugitive Dust* prohibits visible dust emissions beyond the property line in most circumstances. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain requirements on bulk material handling and track-out. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rule 403 – §(a) prohibits visible dust emissions beyond the property line and requires precautions to prevent trackout §(d). Rule 403.1 addresses predominately industrial facilities and unpaved roads, and sets trackout cleaning requirements determined to be relevant and enforceable for this type of setting. Rule 403.2 requires cleanup of trackout within 24 hours.*

*Measure 25b suggests an upwind/downwind PM10 differential of below 50 µg/m<sup>3</sup> as contained in SCAQMD Rule 403. SCAQMD Rule 403 contains provisions to implement BACM based on attainment status. MDAQMD is a RACM District. MDAQMD Rule 403 §(c) provisions are adequate.*

*Current MDAQMD Rules adequately address the contents of this measure as RACM.*

#### 17. CARB Measure 26a – Grading Visible Dust Emissions

CARB Measure 26a requires water application to limit visible dust emissions to 20% opacity and requires phasing of the project to minimize disturbed soil. MDAQMD Rule 403 – *Fugitive Dust* prohibits visible dust emissions beyond the property line in most circumstances. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain requirements regarding stabilization of disturbed soil after grading. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1

is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rule 401 – §(a) limits visible dust emissions to less than Ringelmann No. 1. MDAQMD Rule 403 §(b) requires every reasonable precaution be taken to minimize fugitive dust emissions from grading operations. Rules 403.1 and 403.2 require periodic watering for short-term stabilization. Additionally, Rule 403.2 requires stabilization when subsequent development is delayed or expected to be delayed more than 30 days. Large projects require submission of a dust control plan, where site specific measures can be required as deemed necessary. Dust control plan requirement guidance requires prewatering prior to disturbance.*

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide.*

*Current MDAQMD Rules and requirements adequately address the contents of this measure as RACM.*

#### 18. CARB Measure 26b – Grading Soil Stabilization

CARB Measure 26b requires water application during each phase of grading and stabilization of areas when development is delayed. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain similar requirements. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rule 403 §(b) requires every reasonable precaution be taken to minimize fugitive dust emissions from grading operations. Rules 403.1 and 403.2 require periodic watering for short-term stabilization. Dust control plan requirement guidance requires prewatering prior to disturbance. Rule 403.2 requires stabilization when subsequent development is delayed or expected to be delayed more than 30 days.*

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide.*

*Current MDAQMD Rules and requirements adequately address the contents of this measure as RACM.*

19. CARB Measure 27a – Inactive Disturbed Land Dust Suppression

CARB Measure 27a requires stabilization of inactive disturbed land. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*Rule 403.2 requires stabilization when subsequent development is delayed or expected to be delayed more than 30 days. This rule also requires access route(s) to the project be stabilized as soon as is feasible, which is prior to the completion of construction/demolition activity, and parking lots, paved roads and upwind portions of the project are constructed first.*

*MDAQMD Rule 403.2 adequately addresses the contents of this measure as RACM.*

20. CARB Measure 27b – Inactive Disturbed Land Visible Dust Emissions

CARB Measure 27b requires prohibition of visible dust emissions beyond the property line, sets upwind and downwind concentration levels and requires best available control measures to be applied to inactive disturbed land. MDAQMD Rule 403 – *Fugitive Dust* prohibits visible dust emissions beyond the property line in most circumstances. MDAQMD will evaluate other portions of this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rule 403 – §(a) prohibits VDE beyond the property line.*

*Measure 27b suggests an upwind/downwind PM10 differential of below 50 µg/m<sup>3</sup> as contained in SCAQMD Rule 403. SCAQMD Rule 403 also has high wind provisions for gusts exceeding 25 miles per hour which include increasing watering frequency and applying chemical stabilizers prior to wind events. MDAQMD dust control plan requirement guidance requires an appointed operator identified by the contractor stop all work and focus on dust control during high wind events. Construction events will cease whenever visible dust emissions cannot be effectively controlled. SCAQMD Rule 403 contains provisions to implement BACM based on attainment status. MDAQMD is a RACM District. MDAQMD Rule 403 §(c) provisions are adequate.*

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which*

*consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide.*

*MDAQMD Rules and requirements adequately address the contents of this measure as RACM.*

#### 21. CARB Measure 28a – Bulk Materials Handling and Storage

CARB Measure 28a requires wind barrier and stabilization for bulk materials to limit visible dust to 20% opacity. MDAQMD Rule 401 – *Visible Emissions* has a 20% opacity limit. Rule 403 – *Fugitive Dust* prohibits visible dust emissions beyond the property line in most circumstances. MDAQMD will evaluate whether this measure is appropriate for inclusion in other rules during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD dust control plan requirement guidance requires wind fencing with less than 50% porosity as a mandatory action for a dust control plan, with the wind fencing a minimum of 4' in height on the entire perimeter of the project. MDAQMD Rule 401 – §(a) limits visible dust emissions to less than Ringelmann No. 1. SJVUAPCD Rule 8031 contains provisions to implement BACM based on attainment status. MDAQMD is a RACM District. MDAQMD Rule provisions are adequate.*

*MDAQMD Rules and requirements adequately address the contents of this measure as RACM.*

#### 22. CARB Measure 28b – Bulk Materials Best Available Control Measures

CARB Measure 28b requires no visible dust emissions beyond the property line, establishes upwind and downwind PM differential limits and requires use of best available control measures to control dust. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain some of these requirements. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*Measure 28b suggests an upwind/downwind PM10 differential of below 50 µg/m<sup>3</sup> as contained in SCAQMD Rule 403 and prohibits VDE beyond property line. MDAQMD Rule 403 requires that a property owner does not allow VDE to cross property line. SCAQMD Rule 403 contains provisions to implement BACM based on attainment status. MDAQMD Rule 403 has upwind/downwind particulate differential requirements of below 100 µg/m<sup>3</sup>. MDAQMD is a RACM District. MDAQMD Rule 403 §(c) provisions are adequate to fulfill RACM.*

*MDAQMD Rules and requirements adequately address the contents of this measure as RACM.*

23. CARB Measure 29 – Petroleum Coke, Coal and Sulfur Handling

CARB Measure 29 requires 10% opacity limit in the handling of coke, coal and sulfur. It also requires street sweeping, road maintenance and covers on transport trucks. Current MDAQMD rules do not contain any of these requirements. The MDAQMD will evaluate other portions of this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*SCAQMD Rule 1158 has opacity requirements as well as storage pile requirements for any facility that produces, handles, transports or stores coke, coal or sulfur. SCAQMD Rule 1158 requires all storage piles to be enclosed, or have an approved outdoor storage plan for piles existing before 1999. New piles in the MDAQMD are enclosed pursuant to NSR requirements (Cal Portland Cement). Piles in the MDAQMD existing pre-1999 are either covered by permit provision (Searles Valley Minerals), or generally covered under Rule 401, and Rule 402. Rule 403 also addresses trackout removal provisions that would apply as applicable. Coal piles are not generally located in proximity to paved roads triggering a requirement for enforcement of this provision.*

*MDAQMD Rules and requirements adequately address the contents of this measure as RACM.*

24. CARB Measure 30a – Carryout and Track-out

CARB Measure 30a requires track-out removal in specified circumstances and control devices at entrances to public roads among other requirements. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain some of these requirements. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rule 403 §(d) requires every reasonable precaution be taken to allow trackout, and also requires prompt removal of any material deposited on paved roads. Rule 403.1 requires trackout to be treated biweekly or more to ensure trackout and spilled bulk material is removed rapidly. Rule 403.2 requires cleanup of trackout and spills within 24 hours. MDAQMD dust control plan requirement guidance requires specific treatment to prevent trackout, ie. gravel pad, wheel wash or grizzly. Rule 403.2 also requires stabilized access routes, and construction of parking lots and roads be paved first, where feasible, for projects*

*over 100 acres. This SJVUAPCD Rule was designed to implement BACM based upon serious nonattainment designation. MDAQMD is a RACM District based on its moderate nonattainment status designation.*

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide.*

*MDAQMD Rules and provisions are adequate to fulfill RACM for this measure.*

#### 25. CARB Measure 30b – Carryout and Track-out

CARB Measure 30b requires specific options to be selected to control track-out. Current MDAQMD rules do not contain any of these requirements. The MDAQMD will evaluate other portions of this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rule 403 §(d) requires every reasonable precaution be taken to allow trackout, and also requires prompt removal of any material deposited on paved roads. Rule 403.1 requires trackout to be treated biweekly or more to ensure trackout and spilled bulk material is removed rapidly. Rule 403.2 requires cleanup of trackout and spills within 24 hours. MDAQMD dust control plan requirement guidance requires specific treatment to prevent trackout, ie. gravel pad, wheel wash or grizzly. Rule 403.2 also requires stabilized access routes, and construction of parking lots and roads be paved first, where feasible, for projects over 100 acres. SCAQMD Rule 403 was designed to implement BACM based upon serious nonattainment designation. MDAQMD is a RACM District based on its moderate nonattainment status designation.*

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide.*

*MDAQMD Rules and provisions are adequate to fulfill RACM for this measure.*

#### 26. CARB Measure 31 – Carryout and Track-out Cleanup

CARB Measure 31 requires sweeping up track-out to limit visible dust emissions to 20% opacity. MDAQMD Rule 401 – *Visible Emissions* contains a 20% opacity requirement. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles*

*Valley Planning Area and 403.2 – Fugitive Dust Control for the Mojave Desert Planning Area contain similar requirements. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.*

*Rule 403.1 allows mechanical sweeping and collection of trackout. Rule 403 and 403.1 do not specify wetting or PM10 efficient street sweeper as requirements for cleanup, but Rule 401 does limit visible dust emissions to less than Ringelmann No. 1. MDAQMD dust control plan requirement guidance requires specification for treatment to prevent and treat trackout. Different methods may be required and approved as needed for specific projects. SJVUAPCD Rule 8051 provisions are required to implement BACM. MDAQMD is a RACM District based on its moderate nonattainment status designation.*

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide.*

*MDAQMD Rules and provisions are adequate to fulfill RACM for this measure.*

#### 27. CARB Measure 32a – Disturbed Open Areas Unused for 7 days

CARB Measure 32a requires disturbed open areas which have been unused for 7 or more days to be stabilized. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain similar requirements. The MDAQMD will re-evaluate this measure for cost effectiveness and feasibility during planned activity to amend Rule 403.2. At the same time the MDAQMD will also evaluate whether a change to Rule 403.1 is necessary. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rule 403 provisions state fugitive dust shall not cross the property line. Rule 403.2 requires short term stabilization for disturbed surface areas, and further stabilization when development is delayed or expected to be delayed more than 30 days. This rule also requires access route(s) to the project be stabilized as soon as is feasible, which is prior to the completion of construction/demolition activity, and parking lots, paved roads and upwind portions of the project are constructed first. SJVUAPCD Rule 8051 provisions are required to implement BACM. MDAQMD is a RACM District based on its moderate nonattainment status designation.*

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide.*

*MDAQMD Rules and provisions are adequate to fulfill RACM for this measure.*

28. CARB Measure 32b – Disturbed Open Areas Larger Than ½ Acre

CARB Measure 32b requires non-agricultural areas greater than ½ area to be stabilized. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* do not contain this requirement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*MDAQMD Rules 401, 402 and 403 are applicable district wide. Rules 403.1 and 403.2 are applicable in specific planning areas of the District (although Rule 403.2 provisions have been applied to those areas of the District not included in that planning area). The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide. Proposed Rule 403 is applicable to active operations of varying sizes, but not down to ½ acre size. By APCO discretion and written policy, a dust control plan may be required at a significantly lower thresholds when deemed necessary. Dust Control Plan requirements include stabilization specifications which would be project specific, and tailored to individual project characteristics.*

*MDAQMD Rules and provisions are adequate to fulfill RACM for this measure.*

29. CARB Measure 33a – Paved Shoulders New and Modified Paved Roads

CARB Measure 33a requires paved shoulders on new or modified roads when the average daily vehicle trips are greater than 500 and median construction in a variety of circumstances. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* do not contain this requirement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. This jurisdiction covers 20,000 square miles of desert terrain, the large majority which is relatively rural and sparsely populated. County and City Public Works Departments are the primary*

*governing bodies for road construction standards within the District. The District currently receives and reviews significant projects that occur within its jurisdiction, including those with travel and road components. The District makes recommendations appropriate for these projects. The District does not have personnel or resources to evaluate, monitor or implement this measure, making this measure infeasible.*

30. CARB Measure 33b – Paved Shoulders and Medians

CARB Measure 33b requires curbing and paved shoulders when certain contingencies occur. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* do not contain this requirement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. This jurisdiction covers 20,000 square miles of desert terrain, the large majority which is relatively rural and sparsely populated. County and City Public Works Departments are the primary governing bodies for road construction standards within the District. The District currently receives and reviews significant projects that occur within its jurisdiction, including those with travel and road components. The District makes recommendations appropriate for these projects. The District does not have personnel or resources to evaluate, monitor or implement this measure, making this measure infeasible.*

31. CARB Measure 34 – Street Sweeping

CARB Measure 34 requires the use of certified PM10 efficient street sweepers by governmental agencies and/or their contractors. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* do not contain this requirement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The MDAQMD covers 20,000 square miles of desert terrain, the large majority which is relatively rural and sparsely populated. Much road construction is without curbs and gutters. In 1997, SCAQMD made cost assumptions regarding PM10 efficient street sweepers, stating the PM10 efficient units were more than 25% higher in cost than non-PM10 efficient units, and it was noted that PM10 efficient units operate at 2/3 the speed, thereby requiring municipalities currently utilizing two sweepers to have three instead. Additionally, SCAQMD estimated that maintenance more than doubled for a PM10 efficient sweeper over a non-*

*PM10 sweeper. These assumptions are BACM measures. The MDAQMD is a RACM District and not required to adopt BACM measures.*

32. CARB Measure 35 – Sand and Cinders

CARB Measure 35 requires vacuum street sweeping to remove sand and cinders used for anti-skid material. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* do not contain this requirement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The MDAQMD has a desert climate. The area is characterized by hot, dry summers and mild winters with annual rainfall averaging 2 to 5 inches per year. The District experiences infrequent snow or conditions requiring sand or cinder application. There are several freeway passes that reach elevation to receive infrequent snow with sufficient accumulation to require treatment. Due to the low required usage required by this measure, the District does not consider regulating this source to be cost effective.*

33. CARB Measure 36 – Unpaved Parking and Staging Areas

CARB Measure 36 requires stabilization and/or paving for unpaved parking lots and staging areas depending upon the average number of vehicle trips. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* do not contain this requirement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*Unpaved parking and staging areas are defined as a disturbed surface area and subject to the threshold requirements in current Rule 403.1, 403.2, and Proposed Rule 403 and subject to applicable provisions. A dust control plan may also be required as deemed necessary by APCO discretion. The District currently receives and reviews significant CEQA/planning projects and events that occur within its jurisdiction, including those with parking and staging components. The District makes recommendations appropriate for these projects based on size and frequency.*

*District Rules adequately address this measure.*

34. CARB Measure 37a – Unpaved Roads

CARB Measure 37a requires the stabilization of unpaved roads with more than 75 vehicle trips a day. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* do not contain this requirement. The MDAQMD will

evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. This jurisdiction covers 20,000 square miles of desert terrain, the large majority which is relatively rural and sparsely populated. There are approximately 5,000 linear miles of existing unpaved roads within the District Boundaries. Currently, MDAQMD Rule 403.2 requires cities, towns, and the County of San Bernardino to collectively stabilize heavily traveled unpaved roads to reduce fugitive dust entrainment and wind erosion by at least 1,541 tons per year of PM10 emissions relative to 1990. Additionally, 8 miles minimum of unpaved roads on Searles Valley Dry Lake used for industrial activity shall be treated to reduce silt loading. Also, limestone processing facilities shall stabilize industrial unpaved roads carrying more than 10 vehicle trips per day with the majority of the vehicles weighing 30 tons or more. The District does not have personnel or resources to evaluate, monitor or implement CARB Measure 37a, based on geographic size alone, making this measure infeasible.*

#### 35. CARB Measure 37b – Unpaved Roads

CARB Measure 37b requires that unpaved roads meet certain physical specifications when there are more than 20 vehicle trips per day and requires stabilization annually. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* do not contain this requirement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. This jurisdiction covers 20,000 square miles of desert terrain, the large majority which is relatively rural and sparsely populated. There are approximately 5,000 linear miles of existing unpaved roads within the District Boundaries. Currently, MDAQMD Rule 403.2 requires cities, towns, and the County of San Bernardino to collectively stabilize heavily traveled unpaved roads to reduce fugitive dust entrainment and wind erosion by at least 1,541 tons per year of PM10 emissions relative to 1990. Additionally, 8 miles minimum of unpaved roads on Searles Valley Dry Lake used for industrial activity shall be treated to reduce silt loading. Also, limestone processing facilities shall stabilize industrial unpaved roads carrying more than 10 vehicle trips per day with the majority of the vehicles weighing 30 tons or more. The District does not have personnel or resources to evaluate, monitor or implement CARB Measure 37b, based on geographic size alone, making this measure infeasible.*

36. CARB Measure 38a – Weed Abatement, Pre Abatement Activities

CARB Measure 38a requires watering and phasing work prior to weed abatement to minimize dust. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain some requirements regarding weed abatement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*Rule 401 provides a 20% opacity limit for any emission source for a period or periods aggregating more than three minutes in any one hour. Rule 403.2 requires periodic watering to minimize fugitive dust emissions, and requires phasing of construction to include providing stabilized access route(s) first, construct parking lots and paved roads first, and construct upwind portions first. Pre-watering and phasing may also be required components of a DCP. Rule 403.2 also requires a site undergoing weed abatement activity to not disrupt the soil crust to the extent that visible fugitive dust is created due to wind erosion. The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide. The proposed rule includes provisions for a DCP. The DCP must specify dust control measures for the listed activities in CARB Measure 38a. Current and proposed rules adequately address this CARB measure.*

37. CARB Measure 38b – Weed Abatement

CARB Measure 38b restricts weed abatement activities to mowing and that discing only be used under certain defined circumstances. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain some requirements regarding weed abatement. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*Rule 403.2 (and proposed new Rule 403) requires a site undergoing weed abatement activity to not disrupt the soil crust to the extent that visible fugitive dust is created due to wind erosion. Discing or similar operations used for weed abatement meeting the rule applicability threshold would be required to stabilize the disturbed surface. In no case is fugitive dust to remain visible in the atmosphere beyond the property line of the emission source. Current and proposed rules adequately address this CARB measure.*

38. CARB Measure 39 – Windblown Dust

CARB Measure 39 requires a specific definition for windblown dust. MDAQMD rules do not specifically define windblown dust. The MDAQMD will evaluate

this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide. Adding this definition does not strengthen the rule. The proposed rule defines high winds, and while not defined verbatim, Rule 403 contains similar requirements and adequately addresses this CARB measure.*

39. CARB Measure 40 – Fugitive Dust from Construction and Earth Moving

CARB Measure 40 requires extensive watering of large scale earth moving and stabilization of unpaved roads during active operations. MDAQMD Rules 403.1 – *Fugitive Dust Control for the Searles Valley Planning Area* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area* contain some similar requirements. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide. Proposed active operation thresholds (acreage and earth moving volume) fall below the “large scale” threshold in SCAQMD Rule 403 as referenced in this measure. The proposed revisions to MDAQMD Rule 403 contain many of the SCAQMD provisions, and the District can require any feasible measure be included in a DCP to address site specific characteristics, thereby addressing this CARB measure.*

40. CARB Measure 41 – Fugitive Dust from Disturbed Areas

CARB Measure 41 requires certain actions to be taken if operations remain inactive for more than 4 days. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide. Mandatory dust control plan elements include specifying fugitive dust control measures used for temporary stabilization of disturbed areas to be left inactive for more than 7 days. The District can require any feasible measure be included in a DCP to address site specific characteristics, thereby addressing this CARB measure.*

41. CARB Measure 42a – Fugitive Dust from Bulk Materials and Storage Piles

CARB Measure 42a requires application of water and/or temporary coverings on bulk or storage piles if exceptions from setback requirements or upwind/downwind standards are requested. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District is currently developing revised Rule 403 which consolidates and updates the existing requirements in Rules 403, 403.1 and 403.2 and will be applicable District wide. Requirements include provisions to stabilize or eliminate bulk material open storage piles. The revised rule meets the intent of this measure.*

42. CARB Measure 42b – Fugitive Dust from Bulk Materials

CARB Measure 42b requires control methods similar to those in place in the Coachella Valley (SCAQMD Rule 403.1). The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District does not have a blowsand zone analogous to the Coachella Valley Blowsand Zone. There may be smaller localized areas of blowsand in the District that are identified and managed on a case-by-case basis when and if storage piles are indicated. District dust control plan guidance can be tailored to specific soil types and operations.*

43. CARB Measure 43 – Fugitive Dust Open Areas

CARB Measure 43 requires vegetation cover, wet cover or gravel cover on areas that may contribute to an exceedance of federal PM Standard. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during its planned activity to amend Rule 403.2 - *Fugitive Dust Control for the Mojave Desert Planning Area*. The MDAQMD plans to amend Rule 403.2 on or before November 28, 2005.

*The District does not have a single concentrated area analogous to the Owens Lake as a source of PM<sub>10</sub> that contributes to the PM<sub>10</sub> attainment status. The measures stipulated in the treatment of the Owens Lake remediation are BACM. The MDAQMD is not required to implement BACM for PM<sub>10</sub>.*

44. CARB Measure 44a – Agricultural Sources, Off Field Sources

CARB Measure 44a requires limits on fugitive dust from off field agricultural sources. The MDAQMD is required to adopt an agricultural Best Management

Practices Rule pursuant to the requirements of H&S Code §40724.5. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during the development of this new rule. The MDAQMD plans to develop and adopt an agricultural Best Management Practices Rule on or before November 27, 2006.

*The District developed and proposed to adopt an Agricultural Best Management Practices Rule for Off-field Agricultural Sources (403.3) and On-field Agricultural Sources (Rule 403.4). The District was asked to postpone adoption while USEPA reviewed other Air District rules to identify RACT. The MDAQMD will continue with the development and submission of these rules at the direction of USEPA.*

45. CARB Measure 44b – Agricultural Sources, Conservation Practices

CARB Measure 44b requires voluntary implementation of conservation practices to maintain an exemption from dust rule requirements. The MDAQMD is required to adopt an agricultural Best Management Practices Rule pursuant to the requirements of H&S Code §40724.5. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during the development of this new rule. The MDAQMD plans to develop and adopt an agricultural Best Management Practices Rule on or before November 27, 2006.

*The District developed and proposed to adopt an Agricultural Best Management Practices Rule for Off-field Agricultural Sources (403.3) and On-field Agricultural Sources (Rule 403.4). The District was asked to postpone adoption while USEPA reviewed other Air District rules to identify RACT. The MDAQMD will continue with the development and submission of these rules at the direction of USEPA.*

46. CARB Measure 44c – Agricultural Sources, High Winds

CARB Measure 44c requires agriculture to cease tilling and/or mulching activities during high wind events. The MDAQMD is required to adopt an agricultural Best Management Practices Rule pursuant to the requirements of H&S Code §40724.5. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during the development of this new rule. The MDAQMD plans to develop and adopt an agricultural Best Management Practices Rule on or before November 27, 2006.

*The District developed and proposed to adopt an Agricultural Best Management Practices Rule for Off-field Agricultural Sources (403.3) and On-field Agricultural Sources (Rule 403.4). The District was asked to postpone adoption while USEPA reviewed other Air District rules to identify RACT. The MDAQMD will continue with the development and submission of these rules at the direction of USEPA.*

47. CARB Measure 44d - Agricultural Sources, Paved and Unpaved Roads

CARB Measure 44d requires limitation of fugitive dust from paved and unpaved roads and livestock operations. The MDAQMD is required to adopt an agricultural Best Management Practices Rule pursuant to the requirements of H&S Code §40724.5. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during the development of this new rule. The MDAQMD plans to develop and adopt an agricultural Best Management Practices Rule on or before November 27, 2006.

*The District developed and proposed to adopt an Agricultural Best Management Practices Rule for Off-field Agricultural Sources (403.3) and On-field Agricultural Sources (Rule 403.4). The District was asked to postpone adoption while USEPA reviewed other Air District rules to identify RACT. The MDAQMD will continue with the development and submission of these rules at the direction of USEPA.*

48. CARB Measure 44e - Agricultural Sources, Livestock Feed Yards

CARB Measure 44e requires limitation of fugitive dust from livestock feed yards. The MDAQMD is required to adopt a Reasonably Available Control Technology Rule for large confined animal facilities pursuant to the requirements of H&S Code §40724.7. The MDAQMD will evaluate this measure for cost effectiveness and feasibility during the development of this new rule. The MDAQMD plans to develop and adopt an agricultural Best Management Practices Rule on or before November 28, 2005.

*The District developed and proposed to adopt a Confined Animal Facilities Rule(1186). The District was asked to postpone adoption while USEPA reviewed other Air District rules to identify RACT. The MDAQMD will continue with the development and submission of these rules at the direction of USEPA.*

49. CARB Measure 85 – Use of Solvents

CARB Measure 85 requires a limit of VOC emissions from solvents to no more than 833 lbs/month. It also allows a control device to be used in lieu of limits. MDAQMD Rule 442 – *Usage of Solvents* provides this limit. However, as a part of the evaluation of other measures related to Rule 442 the MDAQMD will evaluate the cost effectiveness and feasibility of this measure on or before November 28, 2005.

*Rule 442 – Usage of Solvents was amended 02/27/2006. The Staff Report for this action states that Rule 442 was analyzed for compliance with CARB measure 85. Measure 85 requires limits of VOC emissions from the general use of solvents. Rule 442 provides requirements similar to CARB control measure 85.*

## C. PM MEASURES REQUIRING FURTHER EVALUATION

A variety of the rules contained in the CARB PM Measures list either do not have cost effectiveness data listed or the cost effectiveness data was developed for an area that is so radically different from the MDAQMD that applying such data would be inappropriate. Therefore, the MDAQMD has determined that certain of the measures require additional evaluation and cost effectiveness analysis prior to making a determination regarding implementation. The following measures were identified in Table 4 of the *List and Implementation Schedule for District Measures to Reduce PM Pursuant to Health & Safety Code §39614(d)*. An explanation for how the District satisfied each measure follows the item *in italics*:

### 1. CARB Measure 1 – Wood Burning Fireplaces/Heaters Public Awareness

CARB Measure 1 requires a public awareness program about control of particulates from wood burning fireplaces and heaters. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*The District maintains Wood Stove information on its website at <http://mdaqmd.ca.gov/outreach/publications-videos/wood-stove-dirty-secrets>. This site presents EPA informational bulletin EPA-456/F-11-002 (Burn Wise Program of U.S. EPA) which addresses 1) Burning the right wood, 2) Safely using a wood burning appliance, and 3) Recommending an EPA-approved appliance. This information meets the obligation to former H&S Code §39614(d).*

### 2. CARB Measure 2a – Curtailment of Wood Burning Appliance Use

CARB Measure 2a requires a mandatory restriction on the use of wood burning appliances when the meteorological conditions are predicted to result in high PM concentrations. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*Information will be posted on the District website to inform the public about periods predicted to have high PM concentrations and will encourage voluntary restrictions from using wood burning fireplaces and heaters during such periods. <http://mdaqmd.ca.gov/air-quality/about-air-quality> provides up to date*

*information about general air quality and advisories. The District maintains a social media presence (Facebook, Twitter and Instagram) where the latest incidents in and near the Mojave Desert Air Basin are reported. The District also provides for subscription to EnviroFlash ([mdaqmd.enviroflash.org](http://mdaqmd.enviroflash.org)). This service allows a subscriber to receive free forecasts and advisories.*

*Due to the size and population distribution of the District as well as staffing constraints for enforcement, mandatory curtailment is not practically enforceable and therefore not cost effective. Voluntary curtailment meets the obligation to former H&S Code §39614(d).*

### 3. CARB Measure 2b – Curtailment of Wood Burning Appliance Use

CARB Measure 2b requires a mandatory restriction on the use of wood burning appliances during high PM periods with the exemption of USEPA certified appliances. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*Information will be posted on the District website to inform the public about periods predicted to have high PM concentrations and will encourage voluntary restrictions from using wood burning fireplaces and heaters during such periods. <http://mdaqmd.ca.gov/air-quality/about-air-quality> provides up to date information about general air quality and advisories. The District maintains a social media presence (Facebook, Twitter and Instagram) where the latest incidents in and near the Mojave Desert Air Basin are reported. The District also provides for subscription to EnviroFlash ([mdaqmd.enviroflash.org](http://mdaqmd.enviroflash.org)). This service allows a subscriber to receive free forecasts and advisories.*

*Due to the size and population distribution of the District as well as staffing constraints for enforcement, mandatory curtailment is not practically enforceable and therefore not cost effective. Voluntary curtailment meets the obligation to former H&S Code §39614(d).*

### 4. CARB Measure 3 – Voluntary Curtailment of Wood Burning Appliance Use

CARB Measure 3 requires the voluntary curtailment of use of wood burning appliances during predicted high PM periods. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning

appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*Information will be posted on the District website to inform the public about periods predicted to have high PM concentrations and will encourage voluntary restrictions from using wood burning fireplaces and heaters during such periods. <http://mdaqmd.ca.gov/air-quality/about-air-quality> provides up to date information about general air quality and advisories. The District maintains a social media presence (Facebook, Twitter and Instagram) where the latest incidents in and near the Mojave Desert Air Basin are reported. The District also provides for subscription to EnviroFlash ([mdaqmd.enviroflash.org](http://mdaqmd.enviroflash.org)). This service allows a subscriber to receive free forecasts and advisories.*

*Due to the size and population distribution of the District as well as staffing constraints for enforcement, mandatory curtailment is not practically enforceable and therefore not cost effective. Voluntary curtailment meets the obligation to former H&S Code §39614(d).*

#### 5. CARB Measure 4 – USEPA Specification Wood Burning Heaters

CARB Measure 4 requires a prohibition of sale and installation of non-USEPA phase II certified wood burning appliances. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*On February 3, 2015 EPA strengthened its clean air standards for residential wood heaters to make new heaters significantly cleaner and to improve air quality in communities where residents burn wood for heat (NSPS for Residential Wood Heaters, 40 CFR 60 subpart AAA). These standards have been phased in over a five-year period and apply only to new wood heaters and does not affect wood heaters already in use in homes. All woodstoves sold at retail in the US must now be U.S. EPA compliant.*

*NSPS requirements effectively meet the obligation of this measure.*

#### 6. CARB Measure 5 – Prohibition of Sale, Non-certified Wood Burning Appliance

CARB Measure 5 requires a prohibition of sale and installation of wood burning heaters and fireplaces which are non-USEPA certified. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use

of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*On February 3, 2015 EPA strengthened its clean air standards for residential wood heaters to make new heaters significantly cleaner and to improve air quality in communities where residents burn wood for heat (NSPS for Residential Wood Heaters, 40 CFR 60 subpart AAA). These standards have been phased in over a five-year period and apply only to new wood heaters and does not affect wood heaters already in use in homes. All woodstoves sold at retail in the US must now be U.S. EPA compliant.*

*NSPS requirements effectively meet the obligation of this measure.*

7. CARB Measure 6 – Prohibition of Installation Non-certified Wood Burning Appliance

CARB Measure 6 prohibits the installation of non-USEPA certified wood burning appliances. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*On February 3, 2015 EPA strengthened its clean air standards for residential wood heaters to make new heaters significantly cleaner and to improve air quality in communities where residents burn wood for heat (NSPS for Residential Wood Heaters, 40 CFR 60 subpart AAA). These standards have been phased in over a five-year period and apply only to new wood heaters and does not affect wood heaters already in use in homes. All woodstoves sold at retail in the US must now be U.S. EPA compliant.*

*NSPS requirements effectively meet the obligation of this measure.*

8. CARB Measure 7 – Limit New Installation of Wood Burning Appliances

CARB Measure 7 requires a limit on the number of wood burning fireplaces and heaters that may be installed in new residential developments. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon

the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*The District is non-attainment for federal PM10 (portion of MDAQMD in Riverside County is unclassified and the portion in Searles Valley is attainment); non-attainment for state PM10; unclassified/attainment for federal PM2.5; non-attainment for state PM2.5 (portion of MDAQMD outside of Western Mojave Desert Ozone Non-attainment Area is unclassified/attainment). The characterization of ambient PM within the District has never included a wood smoke component. Much of the District is composed of rural living below the recommended density in this measure. As such, the District will implement this measure on a voluntary basis only.*

#### 9. CARB Measure 8 – Limit New Installation of Wood Burning Appliances

CARB Measure 8 requires a limit on the number of wood burning appliances that may be installed in non-residential new construction. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*The District is non-attainment for federal PM10 (portion of MDAQMD in Riverside County is unclassified and the portion in Searles Valley is attainment); non-attainment for state PM10; unclassified/attainment for federal PM2.5; non-attainment for state PM2.5 (portion of MDAQMD outside of Western Mojave Desert Ozone Non-attainment Area is unclassified/attainment). The characterization of ambient PM within the District has never included a wood smoke component. Much of the District is composed of rural living below the recommended density in this measure. As such, the District will implement this measure on a voluntary basis only.*

#### 10. CARB Measure 9 Limit Expansion of Wood Burning Appliances

CARB Measure 9 requires a limitation on the installation of additional wood burning appliances during upgrade and renovation of existing non-residential property. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*The District is non-attainment for federal PM10 (portion of MDAQMD in Riverside County is unclassified and the portion in Searles Valley is attainment); non-attainment for state PM10; unclassified/attainment for federal PM2.5; non-attainment for state PM2.5 (portion of MDAQMD outside of Western Mojave Desert Ozone Non-attainment Area is unclassified/attainment). The characterization of ambient PM within the District has never included a wood smoke component. Much of the District is composed of rural living below the recommended density in this measure. As such, the District will implement this measure on a voluntary basis only.*

11. CARB Measure 10a Replacement of Wood Burning Appliances Upon Sale

CARB Measure 10a requires that upon the sale of a residence any wood burning heater or fireplace be upgraded to USEPA certified Phase II equipment. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*The District is non-attainment for federal PM10 (portion of MDAQMD in Riverside County is unclassified and the portion in Searles Valley is attainment); non-attainment for state PM10; unclassified/attainment for federal PM2.5; non-attainment for state PM2.5 (portion of MDAQMD outside of Western Mojave Desert Ozone Non-attainment Area is unclassified/attainment). The characterization of ambient PM within the District has never included a wood smoke component. Much of the District is composed of rural living below the recommended density in this measure. As such, the District will implement this measure on a voluntary basis only.*

12. CARB Measure 10b Replacement of Wood Burning Appliances Upon Sale

CARB Measure 10b requires the replacement of any wood burning appliance with a USEPA Phase II certified appliance upon sale of the residence. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*The District is non-attainment for federal PM10 (portion of MDAQMD in Riverside County is unclassified and the portion in Searles Valley is attainment); non-attainment for state PM10; unclassified/attainment for federal PM2.5; non-attainment for state PM2.5 (portion of MDAQMD outside of Western Mojave Desert Ozone Non-attainment Area is unclassified/attainment). The characterization of ambient PM within the District has never included a wood smoke component. Much of the District is composed of rural living below the recommended density in this measure. As such, the District will implement this measure on a voluntary basis only.*

### 13. CARB Measure 11 – Moisture Standard for Seasoned Wood

CARB Measure 11 requires a moisture standard for seasoned wood offered for sale. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*The District maintains Wood Stove information on its website at <http://mdaqmd.ca.gov/outreach/publications-videos/wood-stove-dirty-secrets>. This site presents EPA informational bulletin EPA-456/F-11-002 (Burn Wise Program of U.S. EPA) which addresses 1) Burning the right wood, 2) Safely using a wood burning appliance, and 3) Recommending an EPA-approved appliance. Additionally, the District maintains dry firewood information at <http://mdaqmd.ca.gov/Home/ShowDocument?id=1198>*

*This information meets the obligation to former H&S Code §39614(d).*

### 14. CARB Measure 12 – Prohibition of Fuel Types

CARB Measure 12 requires a prohibition against use of materials not intended for use in wood burning fireplaces and heaters. The characterization of the ambient PM within the MDAQMD has never included a wood smoke component. Therefore the MDAQMD has never tracked the installation and use of wood burning appliances within the district. The MDAQMD will conduct a study to attempt to determine the amount and distribution of such wood burning appliances within its jurisdiction. Based upon the results of that study, on or before October 27, 2008 the MDAQMD will evaluate the cost effectiveness and feasibility of this control measure.

*The District maintains Wood Stove information on its website at <http://mdaqmd.ca.gov/outreach/publications-videos/wood-stove-dirty-secrets>. This site presents EPA informational bulletin EPA-456/F-11-002 (Burn Wise Program of U.S. EPA) which addresses 1) Burning the right wood, 2) Safely using*

*a wood burning appliance, and 3) Recommending an EPA-approved appliance. Additionally, the District maintains dry firewood information at <http://mdaqmd.ca.gov/Home/ShowDocument?id=1198>*

*This information meets the obligation to former H&S Code §39614(d).*

15. CARB Measure 45a – Boilers, Generators and Process Heaters NOx Limit

CARB Measure 45a requires a NOx limit of 5-40 ppmv for boilers, steam generators and process heaters with an heat input of greater than 5 million Btu/hr. Current MDAQMD Rules 1157 – *Boilers and Process Heaters* and 1158 – *Electric Power Generating Facilities* requires reasonably available control technology limits on all units. Many of the units currently within the jurisdiction of the MDAQMD are older than average. The MDAQMD therefore needs to perform a cost effectiveness analysis to determine the retrofit cost for such units that are not currently rated as “high heat input units”. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rule 1157 on or before April 23, 2007.

*The District amended Rule 1157 – Boilers and Process Heaters on 01/22/18. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible. This amendment meets the obligation to former H&S Code §39614(d).*

*Rule 1158 – Electric Power Generating Facilities was amended 06/26/2017. There are no active sources subject to this rule. The most recently active sources were electric generating boilers and turbines located at the Coolwater Facility in Daggett, California. These units were shut down in March 2015. The provisions of this rule set forth RACT. Any Emission Reduction Credits resulting from such shutdown will be subject to “RACT Upon Use” provisions of NSR prior to use as offsets.*

16. CARB Measure 45b – NOx Limit Petroleum Refinery Boiler or Process Heater

CARB Measure 45b requires a NOx limit on certain petroleum refinery boilers. While the MDAQMD does not have any petroleum refineries within its jurisdiction the MDAQMD needs to determine if any of the equipment located at pipeline compressor and transfer stations may be subject to a similar requirement. The MDAQMD will analyze this in conjunction with the analysis of the cost effectiveness and feasibility of modifying Rules 1157 and 1158 on or before April 23, 2007.

*The District amended Rule 1157 – Boilers and Process Heaters on 01/22/18. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible. This amendment meets the obligation to former H&S Code §39614(d).*

*Rule 1158 – Electric Power Generating Facilities was amended 06/26/2017. There are no active sources subject to this rule. The most recently active sources were electric generating boilers and turbines located at the Coolwater Facility in Daggett, California. These units were shut down in March 2015. The provisions of this rule set forth RACT. Any Emission Reduction Credits resulting from such shutdown will be subject to “RACT Upon Use” provisions of NSR prior to use as offsets.*

17. CARB Measure 45c – NOx Limit for Boilers, Generators and Process Heaters

CARB Measure 45c requires NOx emissions between 30- and 40 ppmv for equipment with a heat input greater than 5 million Btu/hr. Current MDAQMD Rules 1157 – *Boilers and Process Heaters* and 1158 – *Electric Power Generating Facilities* requires reasonably available control technology limits on all units. Many of the units currently within the jurisdiction of the MDAQMD are older than average. The MDAQMD therefore needs to perform a cost effectiveness analysis to determine the retrofit cost for such units that are not currently rated as “high heat input units”. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rules 1157 and 1158 on or before April 23, 2007.

*The District amended Rule 1157 – Boilers and Process Heaters on 01/22/18. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible. This amendment meets the obligation to former H&S Code §39614(d).*

*Rule 1158 – Electric Power Generating Facilities was amended 06/26/2017. There are no active sources subject to this rule. The most recently active sources were electric generating boilers and turbines located at the Coolwater Facility in Daggett, California. These units were shut down in March 2015. The provisions of this rule set forth RACT. Any Emission Reduction Credits resulting from such shutdown will be subject to “RACT Upon Use” provisions of NSR prior to use as offsets.*

18. CARB Measure 45d – NOx Limit for Boilers, Generators and Process Heaters

CARB Measure 45d requires a NOx emissions limit of 30 ppmv for equipment with a heat input greater than 2 million Btu/hr. Current MDAQMD Rules 1157 – *Boilers and Process Heaters* and 1158 – *Electric Power Generating Facilities* requires reasonably available control technology limits on all units. Many of the units currently within the jurisdiction of the MDAQMD are older than average. The MDAQMD therefore needs to perform a cost effectiveness analysis to determine the retrofit cost for such units that are not currently rated as “high heat input units”. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rules 1157 and 1158 on or before April 23, 2007.

*The District amended Rule 1157 – Boilers and Process Heaters on 01/22/18. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible to units greater than 5 million Btu/hr. This amendment meets the obligation to former H&S Code §39614(d).*

*Rule 1158 – Electric Power Generating Facilities was amended 06/26/2017. There are no active sources subject to this rule. The most recently active sources were electric generating boilers and turbines located at the Coolwater Facility in Daggett, California. These units were shut down in March 2015. The provisions of this rule set forth RACT. Any Emission Reduction Credits resulting from such shutdown will be subject to “RACT Upon Use” provisions of NSR prior to use as offsets.*

19. CARB Measure 45e – NO<sub>x</sub> Limit for Boilers, Generators and Process Heaters

CARB Measure 45e requires a NO<sub>x</sub> limit of 30 ppmv for units with a heat input value of 1 million Btu/hr up to 5 million Btu/hr. Current MDAQMD Rules 1157 – *Boilers and Process Heaters* and 1158 – *Electric Power Generating Facilities* requires reasonably available control technology limits on all units. Many of the units currently within the jurisdiction of the MDAQMD are older than average. The MDAQMD therefore needs to perform a cost effectiveness analysis to determine the retrofit cost for such units that are not currently rated as “high heat input units”. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rules 1157 and 1158 on or before April 23, 2007.

*The District amended Rule 1157 – Boilers and Process Heaters on 01/22/18. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible to units greater than 5 million Btu/hr. This amendment meets the obligation to former H&S Code §39614(d).*

*Rule 1158 – Electric Power Generating Facilities was amended 06/26/2017. There are no active sources subject to this rule. The most recently active sources were electric generating boilers and turbines located at the Coolwater Facility in Daggett, California. These units were shut down in March 2015. The provisions of this rule set forth RACT. Any Emission Reduction Credits resulting from such shutdown will be subject to “RACT Upon Use” provisions of NSR prior to use as offsets.*

20. CARB Measure 45f - NO<sub>x</sub> Limit for Boilers, Generators and Process Heaters

CARB Measure 45f requires NO<sub>x</sub> emissions limits from new and existing natural gas large commercial water heaters and small industrial boilers. Current MDAQMD Rules 1157 – *Boilers and Process Heaters* requires reasonably available control technology limits on larger industrial units. The MDAQMD needs to determine the location and retrofit costs for smaller units in this class.

The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rule 1157 on or before April 23, 2007.

*The District amended Rule 1157 – Boilers and Process Heaters on 01/22/18. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible to units greater than 5 million Btu/hr. This amendment meets the obligation to former H&S Code §39614(d).*

21. CARB Measure 45g – NOx Limit for Boilers, Generators and Process Heaters

CARB Measure 45g requires NOx emissions limits from new and existing natural gas large commercial water heaters and small industrial boilers. Current MDAQMD Rules 1157 – *Boilers and Process Heaters* requires reasonably available control technology limits on larger industrial units. The MDAQMD needs to determine the location and retrofit costs for smaller units in this class. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rule 1157 on or before April 23, 2007.

*The District amended Rule 1157 – Boilers and Process Heaters on 01/22/18. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible to units greater than 5 million Btu/hr. This amendment meets the obligation to former H&S Code §39614(d).*

22. CARB Measure 46a – NOx Limit for Turbines

CARB Measure 46a requires a NOx limit on stationary gas turbines between 6 and 65 ppmv depending upon operating capacity and other factors. MDAQMD Rules 1159 – *Stationary Gas Turbines* and 1158- *Electrical Utility Operations* require reasonably available control technology on similar units. The MDAQMD needs to determine the extent of impact and retrofit costs of lowering some NOx limits on particular older turbines. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rules 1159 and 1158 on or before February 26, 2007.

*Rule 1158 – Electric Power Generating Facilities was amended 06/26/2017. There are no active sources subject to this rule. The most recently active sources were electric generating boilers and turbines located at the Coolwater Facility in Daggett, California. These units were shut down in March 2015. The provisions of this rule set forth RACT. Any Emission Reduction Credits resulting from such shutdown will be subject to “RACT Upon Use” provisions of NSR prior to use as offsets.*

*Rule 1159 – Stationary Gas Turbines was amended 09/28/2009. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible. This amendment meets the obligation to former H&S Code §39614(d).*

23. CARB Measure 46b – NOx Limit for Turbines

CARB Measure 46b requires a NOx limit for turbines between 3 and 65 ppmv. MDAQMD Rules 1159 – *Stationary Gas Turbines* and 1158- *Electrical Utility Operations* require reasonably available control technology on similar units. The MDAQMD needs to determine the extent of impact and retrofit costs of lowering some NOx limits on particular older turbines. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rules 1159 and 1158 on or before February 26, 2007.

*Rule 1158 – Electric Power Generating Facilities was amended 06/26/2017. There are no active sources subject to this rule. The most recently active sources were electric generating boilers and turbines located at the Coolwater Facility in Daggett, California. These units were shut down in March 2015. The provisions of this rule set forth RACT. Any Emission Reduction Credits resulting from such shutdown will be subject to “RACT Upon Use” provisions of NSR prior to use as offsets.*

*Rule 1159 – Stationary Gas Turbines was amended 09/28/2009. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible. This amendment meets the obligation to former H&S Code §39614(d).*

24. CARB Measure 46c – NOx Limit for Turbines

CARB Measure 46c requires NOx emissions limits of between 9 and 25 ppm for turbines ranging 2.9 to 10 mw. MDAQMD Rules 1159 – *Stationary Gas Turbines* and 1158- *Electrical Utility Operations* do not regulate all units in this size category. The MDAQMD needs to determine the extent of impact and retrofit costs of lowering some NOx limits on particular older turbines. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rules 1159 and 1158 on or before April 23, 2007.

*Rule 1158 – Electric Power Generating Facilities was amended 06/26/2017. There are no active sources subject to this rule. The most recently active sources were electric generating boilers and turbines located at the Coolwater Facility in Daggett, California. These units were shut down in March 2015. The provisions of this rule set forth RACT. Any Emission Reduction Credits resulting from such shutdown will be subject to “RACT Upon Use” provisions of NSR prior to use as offsets.*

*Rule 1159 – Stationary Gas Turbines was amended 09/28/2009. This amendment evaluated the feasibility of this control measure and determined the control measures to be feasible. This amendment meets the obligation to former H&S Code §39614(d).*

25. CARB Measure 47a – NOx Limit for IC Engines

CARB Measure 47a requires a variety of NOx limits for IC Engines greater than 50 bhp based upon usage and fuel. The MDAQMD has only recently begun permitting IC Engines between 50 bhp and 100 bhp. In addition, MDAQMD Rule 1160 – *Internal Combustion Engines* only applies to large engines greater than 500 bhp. Therefore the MDAQMD will analyze the cost effectiveness and feasibility of modifying Rule 1160 on or before February 26, 2007.

*Rule 1160 – Internal Combustion Engines was amended 01/22/2018. This amendment was determined to meet the obligation to former H&S Code §39614(d).*

26. CARB Measure 47b – NOx Limit for Spark Ignited IC Engines

CARB Measure 47b requires a NOx emissions limit on IC Engines over 50 bhp to between 25 and 75 ppmv, VOC emissions to between 250 and 750 ppmv and Co emissions to 2000 ppmv depending upon engine type and size. The MDAQMD has only recently begun permitting IC Engines between 50 bhp and 100 bhp. In addition, MDAQMD Rule 1160 – *Internal Combustion Engines* only applies to large engines greater than 500 bhp. Therefore the MDAQMD will analyze the cost effectiveness and feasibility of modifying Rule 1160 on or before April 23, 2007.

*Rule 1160 – Internal Combustion Engines was amended 01/22/2018. This amendment was determined to meet the obligation to former H&S Code §39614(d).*

27. CARB Measure 47c – NOx Limit for Spark Ignited IC Engines

CARB Measure 47c requires NOx emissions limits for engines over 50 bhp to between 25 and 125 ppmv and NMHC to between 250 and 750 based on engine type and size. The MDAQMD has only recently begun permitting IC Engines between 50 bhp and 100 bhp. In addition, MDAQMD Rule 1160 – *Internal Combustion Engines* only applies to large engines greater than 500 bhp. Therefore the MDAQMD will analyze the cost effectiveness and feasibility of modifying Rule 1160 on or before April 23, 2007.

*Rule 1160 – Internal Combustion Engines was amended 01/22/2018. This amendment was determined to meet the obligation to former H&S Code §39614(d).*

28. CARB Measure 49c – PM Limit for Cement Kilns

CARB Measure 49c requires a PM emissions limit on cement kilns to 30 lbs per hour for high kiln feed rates and .40 pound per ton of kiln feed for lower kiln feed rates. MDAQMD Rule 1161 – *Portland Cement Kilns* does not currently have a

PM limit included. The MDAQMD will analyze the cost effectiveness and feasibility of modifying Rule 1161 on or before April 23, 2007.

*All three cement kilns operating in the MDAQMD are compliant with this limit. Although not by Rule provision, the District meets this control measure.*

#### 29. CARB Measure 51b – NOx Emissions for Central Furnaces

CARB Measure 51b requires central furnaces with a rating of less than 175,000 Btu/hr have a NOx limitation. The MDAQMD does not currently regulate these small furnaces. However, due to the proximity of the MDAQMD to the SCAQMD it is suspected that many, if not all such furnaces recently installed in the more populated areas of the MDAQMD would meet the SCAQMD standards. The MDAQMD will analyze the cost effectiveness and feasibility of this measure on or before August 27, 2007.

*The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. This jurisdiction covers 20,000 square miles of desert terrain, the large majority which is relatively rural and sparsely populated. The District encompasses 11 different political entities (Cities of Adelanto, Hesperia, Blythe, Needles, Barstow, Twentynine Palms, and Victorville; Towns of Apple Valley and Yucca Valley; County of San Bernardino 1<sup>st</sup> and 3<sup>rd</sup> Districts and County of Riverside 4<sup>th</sup> District). The Planning Divisions of these separate entities would be the primary enforcement mechanism for installation and replacement of these units. Given the sheer size of the District and the difficulty of enforcement, this measure is not cost effective. The District does benefit from being adjacent to SCAQMD in that specified equipment may be available in adjacent areas of the District.*

#### 30. CARB Measure 52a – NOx Emissions for Residential Water Heaters

CARB Measure 52a requires residential water heaters to meet a specified NOx limit for 20 ng/joule of heat output. The MDAQMD does not currently regulate residential water heaters. However, due to the proximity of the MDAQMD to the SCAQMD it is suspected that many, if not all, recently installed residential water heaters in the more populated areas of the MDAQMD would meet the SCAQMD standard. The MDAQMD will analyze the cost effectiveness and feasibility of this measure on or before August 27, 2007.

*The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. This jurisdiction covers 20,000 square miles of desert terrain, the large majority which is relatively rural and sparsely populated. The District encompasses 11 different political entities (Cities of Adelanto, Hesperia, Blythe, Needles, Barstow, Twentynine Palms, and Victorville; Towns of Apple Valley and Yucca Valley; County of San Bernardino 1<sup>st</sup> and 3<sup>rd</sup> Districts and County of Riverside 4<sup>th</sup> District). The Planning Divisions of these separate entities would be the primary enforcement mechanism for*

*installation and replacement of these units. Given the sheer size of the District and the difficulty of enforcement, this measure is not cost effective. The District does benefit from being adjacent to SCAQMD in that specified equipment may be available in adjacent areas of the District.*

### 31. CARB Measure 52b – NOx Emissions for Residential Water Heaters

CARB Measure 52b requires residential water heaters to meet a NOx standard of 40 ng/joule of heat output. The MDAQMD does not currently regulate residential water heaters. However, due to the proximity of the MDAQMD to the SCAQMD is it suspected that many, if not all, recently installed residential water heaters in the more populated areas of the MDAQMD would meet the SCAQMD standard. The MDAQMD will analyze the cost effectiveness and feasibility of this measure on or before August 27, 2007.

*The District has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. This jurisdiction covers 20,000 square miles of desert terrain, the large majority which is relatively rural and sparsely populated. The District encompasses 11 different political entities (Cities of Adelanto, Hesperia, Blythe, Needles, Barstow, Twentynine Palms, and Victorville; Towns of Apple Valley and Yucca Valley; County of San Bernardino 1<sup>st</sup> and 3<sup>rd</sup> Districts and County of Riverside 4<sup>th</sup> District). The Planning Divisions of these separate entities would be the primary enforcement mechanism for installation and replacement of these units. Given the sheer size of the District and the difficulty of enforcement, this measure is not cost effective. The District does benefit from being adjacent to SCAQMD in that specified equipment may be available in adjacent areas of the District.*

### 32. CARB Measure 53 – Commercial Charbroilers

CARB Measure 53 requires all chain driven commercial charbroilers to have catalytic oxidizers. The MDAQMD does not currently regulate commercial charbroilers. The MDAQMD will analyze the cost effectiveness and feasibility of this measure on or before April 23, 2007.

*SCAQMD Rule 1138 – Control of Emissions from Restaurant Operations was adopted and identified catalytic oxidizers as BACT/BARCT technology. According to the staff report for this adoption, this rule reduced 0.5 tons/day of PM2.5 and 0.2 tons of VOC from approximately 800 restaurants. The District has surveyed restaurants that have chain driven charbroilers and determined that there are approximately 26 active facilities operating within the District. Due to the low number of units affected by this measure and the identification of the control device being BACT technology, the District does not consider regulating this source to be cost effective.*

### 33. CARB Measure 54 – Composting General Requirements

CARB Measure 54 requires various process requirements for composters. The MDAQMD does not currently regulate composting operations other than under general opacity, dust and nuisance rules. The MDAQMD will analyze the cost effectiveness and feasibility of this measure on or before August 25, 2008.

*The District evaluated composting processes for cost effectiveness and determined that the following composting practices were not cost effective: Unenclosed aerated static pile (ASP) vented to biofilter; Enclosed ASP vented to biofilter; and, Enclosed ASP vented to biofilter. The district determined that best management practices for composting and composting related operations was cost effective. These practices generally include recognized standards codified in Title 14 of the California Code of Regulations (14 CCR) Chapter 3.1 Compostable Materials Handling Operations and Facilities Regulatory Requirements. Composting facilities are currently regulated by the Local Enforcement Agency (LEA) in San Bernardino and Riverside Counties (Department of Environmental Health). As such, any District rule would be duplicative of an existing regulatory structure.*

*The MDAQMD has the following rules and regulations directly applicable to composting operations: Rule 402 - Nuisance and Rule 403 - Fugitive Dust, and the District currently regulates any equipment requiring a permit.*

*District implementation of this measure would be duplicative of another agency responsibility and as such, not be cost effective.*

### 34. CARB Measure 55 – Composting Chipping and Grinding

CARB Measure 55 requires prevention of inadvertent composting by establishing holding and processing times for chipping and grinding activities. MDAQMD does not currently regulate composting operations other than under general opacity, dust and nuisance rules. The MDAQMD will analyze the cost effectiveness and feasibility of this measure on or before August 25, 2008.

*The District evaluated composting processes for cost effectiveness and determined that the following composting practices were not cost effective: Unenclosed aerated static pile (ASP) vented to biofilter; Enclosed ASP vented to biofilter; and, Enclosed ASP vented to biofilter. was not cost effective. The district determined that best management practices for composting and composting related operations was cost effective. These practices generally include recognized standards codified in Title 14 of the California Code of Regulations (14 CCR) Chapter 3.1 Compostable Materials Handling Operations and Facilities Regulatory Requirements. Facilities are currently regulated by the Local Enforcement Agency (LEA) in San Bernardino and Riverside Counties Department of Environmental Health. As such, any District rule would be duplicative of an existing regulatory structure.*

*The MDAQMD has the following rules and regulations directly applicable to composting operations: Rule 402 - Nuisance and Rule 403 - Fugitive Dust, and the District currently regulates any equipment requiring a permit.*

*District implementation of this measure would be duplicative of another agency responsibility and as such, not be cost effective.*

### 35. CARB Measure 56 – Composting Ammonia and VOC Reduction

CARB Measure 56 requires reduction of VOC and ammonia emissions from composting operations. MDAQMD does not currently regulate composting operations other than under general opacity, dust and nuisance rules. The MDAQMD will analyze the cost effectiveness and feasibility of this measure on or before August 25, 2008.

*The District evaluated composting processes for cost effectiveness and determined that the following composting practices were not cost effective: Unenclosed aerated static pile (ASP) vented to biofilter; Enclosed ASP vented to biofilter; and, Enclosed ASP vented to biofilter. was not cost effective. The district determined that best management practices for composting and composting related operations was cost effective. These practices generally include recognized standards codified in Title 14 of the California Code of Regulations (14 CCR) Chapter 3.1 Compostable Materials Handling Operations and Facilities Regulatory Requirements. Facilities are currently regulated by the Local Enforcement Agency (LEA) in San Bernardino and Riverside Counties Department of Environmental Health. As such, any District rule would be duplicative of an existing regulatory structure.*

*The MDAQMD has the following rules and regulations directly applicable to composting operations: Rule 402 - Nuisance and Rule 403 - Fugitive Dust, and the District currently regulates any equipment requiring a permit.*

*District implementation of this measure would be duplicative of another agency responsibility and as such, not be cost effective.*

### 36. CARB Measure 70 – Graphic Arts

CARB Measure 70 requires a VOC limit on the use of products in graphic arts operations to 150-300 g/l of VOC or by the installation of a control device. MDAQMD's Rule 1117 – *Graphic Arts* generally provides such limits. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rule as well as the cost effectiveness and feasibility of potentially changing such limits on or before February 25, 2008.

*The District amended Rule 1117 – Graphic Arts and Paper, Film, Foil and Fabric Coatings on 09/28/09. The VOC limits contained in SCAQMD Rule 1130 as amended 10/08/1999 were determined to be cost effective and have been*

*incorporated in the proposed amendments to Rule 1117. This amendment meets the obligation to former H&S Code §39614(d).*

37. CARB Measure 74 – Metal Parts and Products

CARB Measure 74 requires limits of VOC emissions from metal parts coating operations not regulated by other more specific regulations such as aerospace manufacturing to a VOC content between 2.3 and 3.5 lbs/gal VOC depending upon process and coating type. MDAQMD Rule 1115 – *Metal Parts and Products Coating Operations* provides, with one coating type exception, these limits. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rule as well as the cost effectiveness and feasibility of potentially changing such limits on or before April 28, 2008.

*The District amended Rule 1115 – Metal Parts & Products Coating Operations on 1/22/2018. The District evaluated Rule 1115 against SCAQMD Rule 1107 – Coating of Metal Parts and Products, amended 01/06/2006. The District analyzed specified VOC limits and implemented those applicable SCAQMD VOC coating limits in the current amendment of Rule 1115. Drum Coating limits not contained in SCAQMD Rule 1107, but contained in the CTG for Miscellaneous Metal and Plastic Parts, were added to meet federal RACT. This amendment meets the obligation to former H&S Code §39614(d).*

38. CARB Measure 79 – Spray Booths

CARB Measure 79 requires limitations on large volume emitting (20 tons per year or more) spray booth facilities to reduce VOC emissions by 65% via use of low VOC coatings or a control device. In general, spray booth requirements in the MDAQMD are found in category specific rules such as 1114 – *Wood Products Coating Operations*, 1115 – *Metal Parts and Products Coating Operations*, 1116 – *Automotive Refinishing Operations* and 1118 – *Aerospace Vehicle Parts and Product Coating Operations*. These rules not only provide limits on VOCs for coating types and usages but by specifying transfer efficiency and spray booth operational practices in some cases. Most, if not all, of the large volume emitting spray booth facilities within the MDAQMD were installed or modified recently and are equipped with BACT. Any new spray booth emitting over 25 lbs/day would also be required to be equipped with BACT. Therefore this requirement is substantially being met within the MDAQMD. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rules as well as the cost effectiveness and feasibility of potentially changing such limits on or before April 28, 2008.

*Rules 1114 (amended 1/22/18), 1115 (amended 1/22/18), 1116 (amended 8/23/10) and 1118 (amended 10/26/15) contain VOC coating and solvent clean up limits, transfer efficiency requirements, and control device reduction of greater than 85%. Current facilities that potentially meet the SCAQMD rule applicability of*

*“using VOC-containing materials that amount to more than 40,000 pounds (20 tons) per year of VOC emissions in any inventory year” are equipped with BACT (emission control system with control efficiency (capture times destruction) of 85% or greater) and are required to meet VOC limits in applicable District rules. District rules and requirements meet or exceed this CARB measure.*

#### 39. CARB Measure 81 – Wood Flat Stock Coatings

CARB Measure 81 requires a VOC limit on coatings applied to wood flat stock for particular usage of 250 g/l VOC or in the alternative that a control device be installed. MDAQMD Rule 1114 – *Wood Product Coating Operations* provides a limit that is equivalent. Please note that all of the high volume wood product coaters within the MDAQMD are currently utilizing control devices with at least 85% capture efficiency pursuant to the provisions of Rule 1114. The other known wood product coaters are of such low volume to be exempt from the requirements of the rule. Therefore, the requirements of this measure are being met. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rules as well as the cost effectiveness and feasibility of potentially changing such limits on or before April 28, 2008.

*SCAQMD Rule 1104 is applicable to all persons applying coatings, inks, and adhesives to wood flat stock for the purpose of manufacturing a finished wood panel intended for attachment to the inside walls of buildings, including, but not limited to, homes and office buildings, mobile homes, trailers, prefabricated buildings and similar structures, boats, and ships; or a finished exterior wood siding intended for use in construction. In the recently adopted 70 ppb Ozone Standard Implementation Evaluation, the District adopted a Federal Negative Declaration for the source category of flat wood paneling. If at any time the District has a facility that applies over the CTG applicability threshold, the District is required to adopt a RACT rule that will fulfill this CARB measure. In addition any new facilities would be subject to BACT under NSR for equipment emitting >25 tons per year of nonattainment air pollutant.*

#### 40. CARB Measure 83a – Solvent Cleaning Operations

CARB Measure 83a requires a limit on VOC emissions from solvent cleaning products to between 25 and 900 g/l dependent upon process used. MDAQMD Rule 1104 – *Organic Solvent Degreasing Operations* is primarily a process and operations limiting rule with no specific solvent limitations. Solvent limitations are provided by a backstop rule, 442 – *Usage of Solvents*. However, due to the proximity of the MDAQMD to SCAQMD and the fact that the suppliers of these products as well as the manufacturer’s of the degreasing units are located within SCAQMD and are subject to SCAQMD Rule 1171, the amount of solvent which is non-compliant with SCAQMD Rule 1171 within the MDAQMD is very low. Therefore, the MDAQMD considers its rules cost effective implementation of this requirement at this time. However, the MDAQMD will analyze the differences

between the limits contained in the CARB measure and those contained in the MDAQMD rules as well as the cost effectiveness and feasibility of potentially changing such limits for Rule 442 on or before November 28, 2005 and for Rule 1104 on or before April 24, 2006.

*Rule 442 – Usage of Solvents was amended 02/27/06. The Staff Report for this amendment identified that Rule 442 was analyzed for compliance with CARB Measures 83, 84 and 85 and provides requirements similar to the CARB control measure.*

*Rule 1104 – Organic Solvent Degreasing Operations was amended 04/23/18. The referenced rules in the control measure were and analyzed at the time of amendment. Rule 1104 was determined to meet RACT by USEPA on 07/02/19. RACT is defined as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. Therefore, the District has determined that the rule provisions provide requirements to fulfill the intent of the CARB control measure.*

#### 41. CARB Measure 83b – Solvent Cleaning Operations

CARB Measure 83b requires a limit on VOC emissions from solvent cleaning products to between 50 and 900 g/l dependant upon process used. MDAQMD Rule 1104 – *Organic Solvent Degreasing Operations* is primarily a process and operations limiting rule with no specific solvent limitations. Solvent limitations are provided by a backstop rule, 442 – *Usage of Solvents*. However, due to the proximity of the MDAQMD to SCAQMD and the fact that the suppliers of these products as well as the manufacturer’s of the degreasing units are located within SCAQMD and are subject to SCAQMD Rule 1171, the amount of solvent which is non-compliant with SCAQMD Rule 1171 within the MDAQMD is very low. Therefore, the MDAQMD considers its rules cost effective implementation of this requirement at this time. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rules as well as the cost effectiveness and feasibility of potentially changing such limits for Rule 442 on or before November 28, 2005 and for Rule 1104 on or before April 24, 2006.

*Rule 442 – Usage of Solvents was amended 02/27/06. The Staff Report for this amendment identified that Rule 442 was analyzed for compliance with CARB Measures 83, 84 and 85 and provides requirements similar to the CARB control measure.*

*Rule 1104 – Organic Solvent Degreasing Operations was amended 04/23/18. The referenced rules in the control measure were and analyzed at the time of amendment. Rule 1104 was determined to meet RACT by USEPA on 07/02/19. RACT is defined as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably*

*available considering technological and economic feasibility. Therefore, the District has determined that the rule provisions provide requirements to fulfill the intent of the CARB control measure.*

#### 42. CARB Measure 84a – Solvent Degreasing Operations

CARB Measure 84a requires a VOC limit on cold cleaners to 25g/l VOC or an air tight, airless cleaning system. MDAQMD Rule 1104 – *Organic Solvent Degreasing Operations*. MDAQMD Rule 1104 – *Organic Solvent Degreasing Operations* is primarily a process and operations limiting rule with no specific solvent limitations. Solvent limitations are provided by a backstop rule, 442 – *Usage of Solvents*. However, due to the proximity of the MDAQMD to SCAQMD and the fact that the suppliers of these products as well as the manufacturer’s of the degreasing units are located within SCAQMD and are subject to SCAQMD Rule 1171, the amount of solvent which is non-compliant with SCAQMD Rule 1171 within the MDAQMD is very low. Therefore, the MDAQMD considers its rules cost effective implementation of this requirement at this time. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rules as well as the cost effectiveness and feasibility of potentially changing such limits for Rule 442 on or before November 28, 2005 and for Rule 1104 on or before April 24, 2006.

*Rule 442 – Usage of Solvents was amended 02/27/06. The Staff Report for this amendment identified that Rule 442 was analyzed for compliance with CARB Measures 83, 84 and 85 and provides requirements similar to the CARB control measure.*

*Rule 1104 – Organic Solvent Degreasing Operations was amended 04/23/18. The referenced rules in the control measure were and analyzed at the time of amendment. Rule 1104 was determined to meet RACT by USEPA on 07/02/19. RACT is defined as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. Therefore, the District has determined that the rule provisions provide requirements to fulfill the intent of the CARB control measure.*

#### 43. CARB Measure 84b – Solvent Degreasing Operations

CARB Measure 84b requires a VOC limit on cold cleaners to 25g/l VOC and 900 g/l VOC for certain exempt categories. MDAQMD Rule 1104 – *Organic Solvent Degreasing Operations*. MDAQMD Rule 1104 – *Organic Solvent Degreasing Operations* is primarily a process and operations limiting rule with no specific solvent limitations. Solvent limitations are provided by a backstop rule, 442 – *Usage of Solvents*. However, due to the proximity of the MDAQMD to SCAQMD and the fact that the suppliers of these products as well as the manufacturer’s of the degreasing units are located within SCAQMD and are

subject to SCAQMD Rule 1171, the amount of solvent which is non-compliant with SCAQMD Rule 1171 within the MDAQMD is very low. Therefore, the MDAQMD considers its rules cost effective implementation of this requirement at this time. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rules as well as the cost effectiveness and feasibility of potentially changing such limits for Rule 442 on or before November 28, 2005 and for Rule 1104 on or before April 24, 2006.

*Rule 442 – Usage of Solvents was amended 02/27/06. The Staff Report for this amendment identified that Rule 442 was analyzed for compliance with CARB Measures 83, 84 and 85 and provides requirements similar to the CARB control measure.*

*Rule 1104 – Organic Solvent Degreasing Operations was amended 04/23/18. The referenced rules in the control measure were and analyzed at the time of amendment. Rule 1104 was determined to meet RACT by USEPA on 07/02/19. RACT is defined as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. Therefore, the District has determined that the rule provisions provide requirements to fulfill the intent of the CARB control measure.*

#### 44. CARB Measure 84c – Solvent Degreasing Operations

CARB Measure 84c requires limitations on VOC emissions from batch-loaded vapor degreasers with operating and equipment requirements. MDAQMD Rule 1104 - *Organic Solvent Degreasing Operations* provides these requirements. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rules as well as the cost effectiveness and feasibility of potentially changing such limits on or before April 24, 2006.

*Rule 442 – Usage of Solvents was amended 02/27/06. The Staff Report for this amendment identified that Rule 442 was analyzed for compliance with CARB Measures 83, 84 and 85 and provides requirements similar to the CARB control measure.*

*Rule 1104 – Organic Solvent Degreasing Operations was amended 04/23/18. The referenced rules in the control measure were and analyzed at the time of amendment. Rule 1104 was determined to meet RACT by USEPA on 07/02/19. RACT is defined as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. Therefore, the District has determined that the rule provisions provide requirements to fulfill the intent of the CARB control measure.*

#### 45. CARB Measure 84d – Solvent Degreasing Operations

CARB Measure 84d requires limitations on VOC emissions from Cold cleaners to 50 g/l VOC and emissions from vapor degreasers by equipment requirements. Air-tight and airless cleaning systems can be used in lieu of the VOC limits. MDAQMD Rule 1104 – *Organic Solvent Degreasing Operations*. MDAQMD Rule 1104 – *Organic Solvent Degreasing Operations* is primarily a process and operations limiting rule with no specific solvent limitations. Solvent limitations are provided by a backstop rule, 442 – *Usage of Solvents*. All cleaner/degreasers have equipment requirements. Due to the proximity of the MDAQMD to SCAQMD and the fact that the suppliers of these products as well as the manufacturer's of the degreasing units are located within SCAQMD and are subject to SCAQMD Rule 1171, the amount of solvent which is non-compliant with SCAQMD Rule 1171 within the MDAQMD is very low. Therefore, the MDAQMD considers its rules cost effective implementation of this requirement at this time. However, the MDAQMD will analyze the differences between the limits contained in the CARB measure and those contained in the MDAQMD rules as well as the cost effectiveness and feasibility of potentially changing such limits for Rule 442 on or before November 28, 2005 and for Rule 1104 on or before April 24, 2006.

*Rule 442 – Usage of Solvents was amended 02/27/06. The Staff Report for this amendment identified that Rule 442 was analyzed for compliance with CARB Measures 83, 84 and 85 and provides requirements similar to the CARB control measure.*

*Rule 1104 – Organic Solvent Degreasing Operations was amended 04/23/18. The referenced rules in the control measure were and analyzed at the time of amendment. Rule 1104 was determined to meet RACT by USEPA on 07/02/19. RACT is defined as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. Therefore, the District has determined that the rule provisions provide requirements to fulfill the intent of the CARB control measure.*

#### 46. CARB Measure 86a – Soil Decontamination

CARB Measure 86a requires procedure and protocols for control of emissions caused by soil decontamination from chemical leaks, spills or underground storage tank removal and/or replacement. The MDAQMD currently does not have a rule specifically providing such procedures. The MDAQMD will evaluate the measure for cost effectiveness and feasibility on or before October 22, 2007.

*San Bernardino County Fire Department and Riverside County Department of Environmental Health are designated Certified Unified Program Agencies (CUPA). As such, they manage six hazardous material and hazardous waste programs. The CUPA Program is designed to consolidate, coordinate, and*

*uniformly and consistently administer permits, inspection activities, and enforcement activities throughout San Bernardino and Riverside Counties. This approach strives to reduce overlapping and sometimes conflicting requirements of different government agencies independently managing these programs. One of the six CUPA elements is Hazardous waste generation and onsite treatment which is the object of this measure. While the District does not perform the CUPA activities, control devices are permitted and inspected.*

*District implementation of this measure would be duplicative of other agency responsibility and as such, not be cost effective.*

#### 47. CARB Measure 86b – Soil Decontamination

CARB Measure 86b requires limitations on VOC emissions from excavations, handling and treatment of VOC contaminated soil. The MDAQMD currently does not have a rule specifically providing such procedures. The MDAQMD will evaluate the measure for cost effectiveness and feasibility on or before October 22, 2007.

*San Bernardino County Fire Department and Riverside County Department of Environmental Health are designated Certified Unified Program Agencies (CUPA). As such, they manage six hazardous material and hazardous waste programs. The CUPA Program is designed to consolidate, coordinate, and uniformly and consistently administer permits, inspection activities, and enforcement activities throughout San Bernardino and Riverside Counties. This approach strives to reduce overlapping and sometimes conflicting requirements of different government agencies independently managing these programs. One of the six CUPA elements is Hazardous waste generation and onsite treatment which is the object of this measure. While the District does not perform the CUPA activities, control devices are permitted and inspected.*

*District implementation of this measure would be duplicative of other agency responsibility and as such, not be cost effective.*

#### 48. CARB Measure 87a – Landfills

CARB Measure 87a requires installation of gas collection and control systems at solid waste landfills. MDAQMD's Rule 1126 – *Municipal Solid Waste Landfills* requires collection systems on landfills greater than 2.5 cubic meters design capacity and an NMOC emission rate of 50 mega grams per year. The MDAQMD has determined that the dry desert climate limits methane and other gaseous emissions such that gas collection systems on smaller landfills would be not be economically feasible and, in some cases, would be completely superfluous. However, the MDAQMD will re-evaluate this determination as well as cost effectiveness and feasibility of this measure on or before October 22, 2007.

*The District has determined that the dry desert climate limits methane and other gaseous emissions. Rule 1126 requires collection systems on landfills greater than 2.5 cubic meters design capacity and an NMOC emission rate of 50 mega grams per year. The two landfills required to have gas collection and control systems continue to report low generation of landfill gas. Due to the low generation of landfill gas at large landfills, the District concludes that such systems on smaller landfills remain economically not feasible.*

49. CARB Measure 87b – Landfills

CARB Measure 87b requires installation of gas collection and control systems for VOC emissions from waste decomposition processes at landfills. MDAQMD's Rule 1126 – *Municipal Solid Waste Landfills* requires collection systems on landfills greater than 2.5 cubic meters design capacity and an NMOC emission rate of 50 mega grams per year. The MDAQMD has determined that the dry desert climate limits methane and other gaseous emissions such that gas collection systems on smaller landfills would be not economically feasible and, in some cases, would be completely superfluous. However, the MDAQMD will re-evaluate this determination as well as cost effectiveness and feasibility of this measure on or before October 22, 2007.

*The District has determined that the dry desert climate limits methane and other gaseous emissions. Rule 1126 requires collection systems on landfills greater than 2.5 cubic meters design capacity and an NMOC emission rate of 50 mega grams per year. The two landfills required to have gas collection and control systems continue to report low generation of landfill gas. Due to the low generation of landfill gas at large landfills, the District concludes that such systems on smaller landfills remain economically not feasible.*

50. CARB Measure 88 – Woodworking Operations

CARB Measure 88 requires the control of PM from certain types of woodworking equipment. The MDAQMD currently does not have a rule that specifically regulates this activation. The MDAQMD will evaluate this measure for cost effectiveness and feasibility on or before February 25, 2008.

*The MDAQMD has one source potentially subject to this measure. This business has installed a control device to collect sawdust and contains the sawdust collected, although this is not required pursuant to rule or permit requirement.*

*MDAQMD Rule 403 – §(a) prohibits visible emissions beyond the property line.*

*The regulation by new rule of a single business for measures that are currently being self-implemented is not considered cost effective.*

51. CARB Measure 98 – Lawnmower Buy Back

CARB Measure 98 requires a buy back program for gasoline powered lawn and garden equipment. The MDAQMD currently does not have a program of this nature. The MDAQMD will evaluate this measure for cost effectiveness and feasibility on or before February 25, 2008.

*The District has been operating a lawn equipment exchange program since 2010. The exchange program is an event where residents can exchange their internal combustion, gasoline powered mowers/trimmers/blowers for zero emission replacements. Initially, only lawn mowers were exchanged but now eligible equipment has been expanded to include blowers and trimmers. Any resident within Mojave's AQMD jurisdiction is eligible to participate. In general residents pay anywhere from \$99-\$125 for the equipment out of pocket and the District covers the remaining cost of the equipment.*

*The Lawn & Garden Equipment Exchange Program is funded with AB 2766 funds. In 1992, under the authority of Assembly Bill 2766 (Sher), the MDAQMD Governing Board authorized to impose a \$4 motor vehicle registration fee to provide funds to meet new responsibilities mandated under the California Clean Air Act (CCAA). As enacted in the California Health & Safety Code (H&S Code), AB 2766 states that the fees shall be used to support district operated planning, monitoring, enforcement and technical studies necessary to implement the CCAA.*

*In the past two years the District has allocated \$100,000 for the exchanges. The last three years activity is summarized below:*

<b>Exchange Year</b>	<b>Lawn Mowers</b>	<b>Blowers</b>	<b>Trimmers</b>	<b>Total</b>
2019	138	42	72	252
2018	98	62	59	219
2017	99	51	65	215

*The current MDAQMD Lawn & Garden Equipment Exchange Program adequately address the contents of this measure.*

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## Appendix “A” Bibliography

The following documents were consulted in the preparation of this certification.

1. California Health and Safety Code §39614
2. Characterization of Ambient PM10 and PM2.5 in California, Technical Report June 2005, <https://ww3.arb.ca.gov/pm/pmmeasures/pmch05/pmch05.htm>
3. SB656 Cost-Effectiveness Documentation Clearinghouse for Particulate Matter, <https://ww3.arb.ca.gov/pm/pmmeasures/ceffect/ceffect.htm>
4. Staff Report Proposed List of Measures to Reduce Particulate Matter – PM10 and PM2.5 (Implementation of Senate Bill 656, Sher 2003), November 18, 2004, [https://ww3.arb.ca.gov/pm/pmmeasures/sb656\\_staff\\_report\\_board\\_approved.pdf](https://ww3.arb.ca.gov/pm/pmmeasures/sb656_staff_report_board_approved.pdf)
5. SB656 List of Air District Measures that Reduce Particulate Matter, [https://ww3.arb.ca.gov/pm/pmmeasures/board\\_approved\\_list.pdf](https://ww3.arb.ca.gov/pm/pmmeasures/board_approved_list.pdf)
6. MDAQMD List and Implementation Schedule for District Measures to Reduce PM Pursuant to Health & Safety Code §39614(d), June 27, 2005

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