MASTER CONTROL STRATEGY LIST

Category

ID **Control Strategy**

Append 8-29-2005

Area

1-M2 Indirect source program

Require new indirect sources to mitigate attracted emissions or pay mitigation fee. Fee used by air agency for mitigation projects

2-M2 Oil & gas production components

Control fugitive emissions from production and processing components

3-M2 Cutback asphalt application

Additional controls on equipment used for commercial roofing, etc

5-M2 Gasoline Dispenser hoses

Reduce fuel permeation through hoses

6-M2 Add Process heaters to all ICI Boiler measures unless these measures are interpreted to include such equipment at refineries and other oil and gas production facilities, chemical plants etc.

California Air Districts address these sources separately.

7-M2 Consider a measure for small boilers and process heaters down to 5 MMBtu/hr. easures in place.

Several California Air Districts already have such m

8-M2 Include a measure for Stationary Fuel Cells, Photo Voltaic and Wind Power to meet new electric demand in SIP areas.

(There is a measure for solar energy to produce electrical power (Measure 215M) but these other technologies are also available to produce electrical power.

10-M2 Use "smart" building materials designed to clean the air with a little help from the elements.

This is the idea: UV rays hitting the titanium dioxide trigger a catalytic reaction that destroys the molecules of pollutants, including nitrogen oxides, which are emitted in the burning of fossil fuels and create smog when combined with volatile organic compounds.

11-M2 Invest in pollution control technology at feedlots and animal waste lagoons and invest in altering livestock diets to reduce methane production.

The average dairy cow produces 19.3 pounds of gases, called volatile organic compounds, every year, the San Joaquin Valley Air Pollution Control District concluded. Those gases react with other pollutants to form ground-level ozone, or smog. Emissions of almost 20 pounds per cow mean that cattle in the may produce more organic compounds than are generated by either cars or trucks or pesticides.

On-road

9-M2 ENCOURAGE having multiple cars.

Many people need larger vehicles for occasional household needs (ie. kids, pets), but could own a second, more fuel efficient car for regular commuting when cargo space is not needed.

12-M2 Delayed start of Six Flags, Water Parks, Ranger Games

Point

4-M2 Asphalt plant dryers & heaters

Control these sources at asphalt concrete manufacturing plants

13-M2 General Surface Coating Application - VOC

TAC, Sections 115.420 - 115.429 can be expanded for 5 counties in DFW.

14-M2 Chemical Manufacturing - VOC

Loading racks; Transportation & Marketing- Tank trucks/Cars loading; Petroleum storage tank-Loading racks: 30 TAC §§115.211 - 115.219 could be revised to require a 95% control efficiency rather than the 90% level of the current rule. The rule could also be extended to 5 counties in DFW at either 90% or 95 % control level.

15-M2 Breweries- VOC

Implement practices to minimize spillage in filling operations, keg cleaning and waste beer processing. Wastewater streams and components could be covered at all times and routed to a treatment system capable of a VOC reduction efficiency equivalent to that obtained from the use of properly operated biotreatment unit. Emissions from the fermentation tanks could be reduced by the use of a condenser. Coding of bottles, cans, cases, and kegs could incorporate the use of low VOC containing inks or an ink-free laser coding process.

16-M2 Bakeries - VOC

Implement contingency measure to require reductions from bakery ovens at sites with total VOC 25> tpy but < 50 tpy.Extend requirements for control of bakery oven emissions to 5 new counties.

17-M2 Stationary External Combustion - VOC

Optimized combustion practices. External combustion sources are typically fired with natural gas or fuel oil. VOC emissions are produced from unburned organics present in the fuel, and result from poor combustion conditions such as inefficient fuel-air mixing, low temperatures, and short residence time. Since these same conditions cause CO emissions to increase, continuous monitoring of CO may be used as a surrogate for VOC emissions. CO CEMS is already required for large boilers and process heaters under the NOx RACT rule. Combustion modifications for NOx control can result in CO and VOC increases.

18-M2 Pulp & Paper - VOC

MACT standards require the control of hazardous air pollutant (HAP) emissions. VOC emissions are not specifically targeted by the MACT, but the control technologies upon which the standards are based will similarly reduce VOC emissions.

19-M2 Additional storage tank controls-VOC

Extending existing 115-storage tank rule from 4 counties to 5 new counties. Additional or more stringent requirements in existing storage tank rules.

20-M2 Primary Metal Production - VOC

Implement work practice standards to minimize the amount of organics in furnace charge materials or require use of gas-fired preheater where the flame directly contacts the scrap charged.VOC emission specifications for cupola melting furnaces and mold/core production processes; capture and collection systems, thermal incinerators (afterburners).

21-M2 Secondary Metal Production - VOC

Implement work practice standards to minimize the amount of organics in furnace charge materials or require use of gas-fired preheater where the flame directly contacts the scrap charged.VOC emission specifications for cupola melting furnaces and mold/core production processes; capture and collection systems, thermal incinerators (afterburners).

22-M2 i) Fugitive Leaks - VOC- ii) Control emissions from valves and flanges - VOC

i)Expand current Chapter 115 rules to 5 counties- Lower Leak definitions- Institute audit provisions to improve actual reductions. ii) Control emissions from valves and flanges- Set a maximum leak limit for components- Target minimization and repair periods (reduce repair time)- If equipment leaks frequently, replace equipment.- Require inaccessible equipment to be replaced by superior technologies- Quantify mass emissions and impose emission caps- Increase inspections- Use remote sensing technologies to identify the largest leaking components

23-M2 Cooling Towers - VOC

Cooling water monitoring of cooling tower heat exchange systems for flow rate and VOC to detect leaks and quantify emissions (similar to HRVOC rules from HGB).VOC controls: Specific point source limit, repair requirements, or cap & trade approach.

24-M2 Industrial Wastewater- VOC

30 TAC §§115.140-115.149 could be extended to 5 counties in DFW

25-M2 Flares - VOC

Require continuous monitoring of flow rate, net heating value, and composition on flares (similar to HRVOC rules from HGB). VOC controls: Specific point source limit or cap & trade approach.

26-M2 Incinerators - NOx -

Apply HGB emission specifications to 9 counties.

27-M2 General process vent gas control - VOC

Expand existing general vent gas rule to 5 new counties.The proposed measure raises the control efficiency for non-SOCMI processes from 90% to 98%.Incinerators - emission testing to establish demonstrated compliance parameter levels (such as inlet and exhaust temperatures, flow rates, etc.)

28-M2 Gas-fired Engines - NOx -

Apply HGB emission specification to the 9 counties and remove the exemption for engines less than 300 hp.

29-M2 Electricity Surcharge - NOx

Peak usage surcharge on energy use. This will encourage non-peak use, and will provide funding for local energy efficiency programs.

30-M2 Storage Tank Inspections - VOC

The proposed control measure utilizes advanced/enhanced inspection devices/techniques to inspect storage tanks. Gas imaging cameras, internal remote inspection (robot), etc.These inspections would eliminate the necessity to empty a tank during the inspection process. Tank inspection and maintenance emissions would be reduced to a negligible amount.

31-M2 Diesel and Dual-fuel Engines - NOx -

Apply HGB emission specifications to 9 counties- Apply HGB specifications to 9 counties and East Texas (defined by SB7)- Apply HGB emission specifications to 9 counties and East Texas (defined by SB7) to major sources.

32-M2 DERC and ERC Environmental Contribution - VOC and NOx -

Increase the environmental contributions for ERCs and DERCs from 10% to 20%

33-M2 Electric Generating Facilities - NOx -

Apply HGB emission specifications to 9 counties- Apply HGB emission specifications to East Texas (defined by SB7). - Expand existing 4 county DFW NOx controls to 5 new counties.

34-M2 Primary Metal Production - NOx-

SNCR for metallurgical furnaces

35-M2 Secondary Metal Production - NOx-

SNCR for metallurgical furnaces

36-M2 Gas-fired Stationary Internal Combustion Engines - VOC

Assign VOC emission specification.

37-M2 Non-Utility Turbines - NOx-

Apply HGB emission specifications to 9 counties

38-M2 Backup Diesel Generators-

Apply HGB emission specifications- Convert to natural gas- Convert to fuel cells

39-M2 Cement Kilns - NOx-

LoTOx- SNCR- SCR

40-M2 Cement Kilns - VOC-

Regenerative thermal oxidization

41-M2 Aggregate Kilns - NOx-
Apply HGB emission specifications to 9 counties

42-M2 Brick Kilns - NOx

43-M2 Process Heaters - NOx-
Apply HGB emission specifications to 9 counties

44-M2 ICI Boilers - NOx-
Expand existing 4 county DFW NOx controls to 5 new counties.- Apply HGB emission specifications to 9 counties

45-M2 Lime Kilns - NOx-
Apply HGB emission specifications to 9 counties

46-M2 Pulping Liquor Furnaces - NOx-
Apply HGB emission specifications to 9 counties

47-M2 Dryers, non-process Heaters and Ovens -NOx

48-M2 Engine Test Cells - NOx and VOC

49-M2 Wastewater from Coke Cutting operations - VOC
Wastewater from coke cutting is not part of the refinery wastewater collection and treatment system. Include it in the existing collection and treatment system

50-M2 NOx reductions from Refinery boilers, steam generators, and process heaters. - NOx
A 5 ppm NOx limit corrected to 3% O2, or 0.0062 lb/MMBtu standard for large refinery boilers and process heaters (larger than 110 MMBtu)

51-M2 Reschedule processes at stationary source - VOC and NOx
Limit the following activities on high ozone action days - repair, maintenance, cleaning, and other shutdown of production equipment at industrial facilities. Examples include - prohibiting tank cleaning or process vessel depressurization at refineries.

Total	**51**