

GLOSSARY OF TERMS

A

Acute Health Effect: An adverse health effect that occurs over a relatively short period of time, (e.g., minutes, or hours.)

Adverse Health Effect: A health effect from exposure to air contaminants that may range from relatively mild temporary conditions, such as eye or throat irritation, shortness of breath, or headaches to permanent and serious conditions, such as birth defects, cancer or damage to lungs, nerves, liver, heart, or other organs.

Aerosol: Particles of solid or liquid matter that can remain suspended in air from a few minutes to many months depending on the particle size and weight.

Agricultural Burning: The intentional use of fire for vegetation management in areas such as agricultural fields, orchards, rangelands, and forests. The regulation of agricultural burning is described in the Agricultural Burning Guidelines, Title 17, California Code of Regulations.

Air: So called “pure” air is a mixture of gases containing about 78 percent nitrogen, 21 percent oxygen, and less than one percent carbon dioxide, argon, and other inert gases, with varying amounts of water vapor. See also ambient air.

Air Basin: A land area with generally similar meteorological and geographic conditions throughout. To the extent possible, air basin boundaries are defined along political boundary lines and include both the source and receptor areas. California is currently divided into 15 air basins. Santa Barbara County is located in the South Central Coast Air Basin, along with San Luis Obispo and Ventura Counties.

Air District: A political body responsible for managing air quality on a regional or county basis. California is currently divided into 35 air districts. (See also air pollution control district).

Air Monitoring: Sampling for and measuring of pollutants present in the atmosphere.

Air Pollutant: Any foreign and/or natural substance that is discharged, released, or propagated into the atmosphere that may result in adverse effects on humans, animal, vegetation and/or materials. Also known as an air contaminant. Examples include but are not limited to smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids, or any combination thereof.

Air Pollution: Degradation of air quality resulting from unwanted chemicals or other materials occurring in the air.

Air Pollution Control District (APCD): This is the local agency that has authority to regulate

stationary, indirect, and area sources of air pollution and governing air quality issues. The APCD proposes and adopts local air pollution rules, enforces those rules, responds to air pollution related complaints, issues permits to polluting sources, inventories sources of air pollution emissions. An air pollution control board composed of elected officials governs the APCD.

Air Quality Attainment Plan (AQAP): A comprehensive document required under the California Clean Air Act (Health and Safety Code Section 40910 et. seq.), which details the programs and control measures to be implemented for the purpose of reducing emissions. Emissions ultimately must be reduced to the extent that measured concentrations of pollutants in the air will not exceed California ambient air quality standards.

Air Quality Index (AQI): The USEPA recently revised its method of reporting air quality and the associated health effects. The Air Quality Index replaces the Pollutant Standards Index (PSI) previously used to report air quality to the public. The AQI is a measure of air quality based on a percentage of the federal air quality standard: An AQI of 100 means the pollutant level is equal to the federal standard for that pollutant. An AQI below 100 means the air quality is better than the standard, and above 100 can be considered unhealthful. The higher the number, the more air pollution we are breathing. In Santa Barbara County, we report the AQI for ozone, based on the federal 8-hour standard. Ozone is the only pollutant for which we have recently violated a federal air quality standard.

Air Quality Simulation Model: A computer program that simulates the transport, dispersion, and transformation of compounds emitted into the air and can project the relationship between emissions and air quality.

Air Toxics: A generic term referring to a harmful chemical or group of chemicals in the air. Typically, substances that are especially harmful to health, such as those considered under EPA's hazardous air pollutant program or California's AB 1807 toxic air contaminant program, are considered to be air toxics. Technically, any compound that is in the air and has the potential to produce adverse health effects is an air toxic.

Airborne Toxic Control Measure (ATCM): A type of control measure, adopted by the ARB (Health and Safety Code Section 39666 et seq.), which reduces emissions of toxic air contaminants from non-vehicular sources.

Alternate Fuels: Any fuel used for vehicular sources other than standard gasoline or diesel fuels. These include ethanol, methanol, compressed natural gas, liquid petroleum gas and electricity. Alternative fuels are cleaner burning and help meet ARB's mobile and stationary emission standards.

Ambient Air: The air that is in the troposphere and is subjected to meteorological and climatic change. Often used interchangeably with "outdoor" air.

Ambient Air Quality Standard: Health and welfare based standards established by the state or federal government for clean outdoor air that identify the maximum acceptable average concentrations of air pollutants during a specified period of time.

Ammonia (NH₃): A pungent colorless gaseous compound of nitrogen and hydrogen that is very soluble in water and can easily be condensed into a liquid by cold and pressure. Ammonia reacts with NO_x to form ammonium nitrate -- a major PM_{2.5} component in the Western United States.

Anthropogenic Emissions: Emissions related to human activity or devices.

Area-Wide Source: Stationary sources of pollution (e.g., water heaters, gas furnaces, fireplaces, and residential wood stoves) that are typically associated with homes and non-industrial sources. The emissions from these sources in themselves don't emit a significant amount of emissions, but when considered collectively with other similar sources become significant.

Atmosphere: The gaseous mass or envelope surrounding the Earth. From ground level up, the atmosphere is further subdivided into the troposphere, stratosphere, mesosphere, and the thermosphere. Where air pollutants are emitted into a building not designed specifically as a piece of air pollution control equipment, such emission into the building shall be considered an emission into the atmosphere.

Attainment: Achievement of air quality standards.

Attainment Area: A geographic region, which is in compliance with the National and/or California Ambient Air Quality Standards for a criteria pollutant under the Federal Clean Air Act or California Clean Air Act.

Attainment Plan: In general, a plan that details the emission reducing control measures and their implementation schedule necessary to attain air quality standards. In particular, the federal Clean Air Act requires attainment plans for nonattainment areas; these plans must meet several requirements, including requirements related to enforceability and adoption deadlines.

Average Daily Emissions: Annual emissions divided by 365 (the number of days in a year).

B

Best Available Control Measure (BACM): A term used to describe the "best" measures (according to U.S. EPA guidance) for controlling small or dispersed sources of particulate matter and other emissions from sources such as roadway dust, woodstoves, and open burning.

Best Available Control Technology (BACT): BACT is a term used to describe up-to-date methods, systems, techniques, and processes applied to new and modified sources of air pollution in order to achieve the most feasible air pollution emission control. BACT is a requirement stipulated in APCD Regulation VIII (New Source Review), in both Rule 802 (Nonattainment Review) and Rule 803 (Prevention of Significant Deterioration). Rule 802 governs the permitting of new and modified stationary sources of air pollution that emit pollutants for which the County has been designated as nonattainment for either the State or federal ambient air quality health standards. Rule

803 governs the permitting of new or modified stationary sources of attainment pollutants. Each of these two rules contains its own emission rate thresholds over which the BACT requirement is triggered. For sources permitted under Rule 802, BACT is the more stringent of:

- a.) The most effective control device, emission unit, or technique that has been achieved in practice for the type of equipment comprising the stationary source; or
- b.) The most stringent limitation contained in any State Implementation Plan; or
- c.) Any other emission control device or technique determined after public hearing to be technologically feasible and cost effective by the Control Officer.

For sources permitted under Rule 803, BACT is an emission limitation based on the maximum degree of reduction for each pollutant that would be emitted from any new or modified stationary source. This is done on a case-by-case basis, taking into account energy, environment, and economic impacts and other costs. It also needs to be achievable for such a source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such a pollutant.

Best Available Mitigation Measures (BAMM): Design or operation measures that are directly related to the particular project, and are intended to reduce the number of vehicle trips.

Best Available Retrofit Control Technology (BARCT): An emission limitation based on the maximum degree of reduction achievable by existing sources, taking into consideration environmental, energy and economic needs.

Biogenic Emissions: Biological sources such as plants and animals that emit air pollutants such as volatile organic compounds. Examples of biogenic sources include animal management operations, and oak and pine tree forests. (See also natural sources.).

Bureau of Automotive Repair (BAR): An agency of the California Department of Consumer Affairs that manages the implementation of the motor vehicle Inspection and Maintenance Program.

C

California Air Resources Board (ARB or CARB): The State's lead air quality agency consisting of an eleven-member board appointed by the Governor and several hundred employees. CARB is responsible for attainment and maintenance of the state and federal air quality standards, and is fully responsible for motor vehicle pollution control. CARB oversees county and regional air pollution management programs.

California Ambient Air Quality Standards (CAAQS): A legal limit that specifies the maximum level and time of exposure in the outdoor air for a given air pollutant and which is protective of human health and public welfare (Health and Safety Code 39606b). CAAQSs are recommended by the California Office of Environmental Health Hazard Assessment and adopted into

regulation by the CARB. CAAQSs are the standards, which must be met per the requirements of the California Clean Air Act (State Act).

California Clean Air Act of 1988 (State Act): A California law passed in 1988, which provides the basis for air quality planning and regulation independent of federal regulations. A major element of the Act is the requirement that local air districts in violation of the CAAQS must prepare attainment plans which identify air quality problems, causes, trends, and actions to be taken to attain and maintain California's air quality standards by the earliest practicable date.

California Environmental Protection Agency (Cal/EPA): A state government agency established in 1991 for unifying environmental activities related to public health protection in the State of California. There are six boards, departments, and offices under the organization of Cal/EPA including the California Air Resources Board (ARB), California Integrated Waste Management Board (IWMB), State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCB), Department of Pesticide Regulation (DPR), Department of Toxic Substances Control (DTSC), and Office of Environmental Health Hazard Assessment (OEHHA). The Cal/EPA boards, departments, and offices are directly responsible for implementing California environmental laws, or play a cooperative role with other regulatory agencies at regional, local, state, and federal levels.

California Environmental Quality Act (CEQA): A California law, which sets forth a process for public agencies to make informed decisions on discretionary project approvals. The process aids decision-makers to determine whether any environmental impacts are associated with a proposed project. It requires environmental impacts associated with a proposed project to be eliminated or reduced, and that air quality mitigation measures are implemented.

Carbon Monoxide (CO): A colorless, odorless, poisonous gas resulting from the incomplete combustion of fossil fuels. Over 80% of the CO emitted in urban areas is contributed by motor vehicles. CO interferes with the blood's ability to carry oxygen to the body's tissues and results in numerous adverse health effects. CO is a criteria air pollutant. This is one of the six pollutants for which there is a national ambient standard. (See Criteria Pollutants).

Carl Moyer Fund: A multi-million dollar incentive grant program designed to encourage reduction of emissions from heavy-duty engines. The grants cover the additional cost of cleaner technologies for on-road, off-road, marine, locomotive and agricultural pump engines, as well as forklifts and airport ground support equipment.

Chlorofluorocarbons (CFCs): Any of a number of substances consisting of chlorine, fluorine, and carbon. CFCs are used for refrigeration, foam packaging, solvents, and propellants. They have been found to cause depletion of the atmosphere's ozone layer.

Chronic Health Effect: An adverse health effect, which occurs over a relatively long period of time (e.g., months or years).

Commute: A home-to-work or work-to-home trip made regularly in connection with employment.

Commute Alternatives: Carpooling, vanpooling, transit, bicycling, and walking as commute modes during peak period, as well as any Alternative Work Hours Program which results in the use of any mode of transportation for commuting outside of the peak periods.

Compliance Efficiency: The percent of emission sources subject to a control measure that is in compliance with its requirements. EPA recommends that compliance efficiency is assumed to be 80 percent unless a District proves otherwise.

Composite Efficiency: The efficiency value, which represents the actual effect of a control measure on a source category. Composite efficiency is calculated by finding the product of the control efficiency, percent implementation, the compliance efficiency, and the fraction of the source category affected.

Compressed Natural Gas: An alternative fuel used in motor vehicles; considered one of the cleanest alternative fuels because of low hydrocarbon emissions. However, it does emit a significant quantity of nitrogen oxides.

Compressed Work Schedules: Work schedules that compress the traditional 40-hour weekly work period into fewer than five days by adopting longer work day such as 4/40 (4-ten hour days), and 9/80 (8-nine hour and 1-eight hour days out of every ten work days).

Conformity: A demonstration of whether a federally supported activity is consistent with the State Implementation Plan (SIP) -- per Section 176 (c) of the Clean Air Act. Transportation conformity refers to plans, programs, and projects approved or funded by the Federal Highway Administration or the Federal Transit Administration. General conformity refers to projects approved or funded by other federal agencies.

Congestion: Traffic conditions on roads, highways, or freeways, which do not permit movement at optimal legal speeds.

Congestion Management Program: A state mandated program (Government Code Section 65089a) that requires each county to prepare a plan to relieve congestion and reduce air pollution.

Consumer Products: Products such as detergents, cleaning compounds, polishes, lawn and garden products, personal care products, and automotive specialty products which are part of our everyday lives and, through consumer use, may produce air emissions which contribute to air pollution.

Contiguous Property: Two or more parcels of land with a common boundary or that are separated solely by a public roadway or other public right-of-way.

Contingency Measure: Contingency measures are statute-required back-up control measures to be implemented in the event of specific conditions. These conditions can include failure to meet interim milestone emission reduction targets or failure to attain or maintain the standard by the statutory attainment date. Both state and federal Clean Air Acts require that District plans

include contingency measures.

Control Efficiency: The percent of emissions that are controlled (i.e. not emitted) as a result of some control on a polluting device or process.

Control Measure: A strategy to reduce the emissions of air pollution caused by a specific activity or related group of activities. An existing control measure is a measure, which is currently being implemented as a rule. A proposed for adoption control measure is a measure that the APCD will be mandated to make into a rule if the plan is approved by the Board. A further study control measure is a measure that has the potential of being proposed for adoption, but warrants further study.

Corporate Average Fuel Economy: The sales-weighted average fuel economy of an automobile manufacturer's annual production; CAFE is also used to refer to the Federal law that mandates that automobile manufacturers meet minimum average fuel economy standards.

Cost-Effectiveness: A cost per unit of emission reduction, which is lower than or equivalent to the maximum unit costs of the same emission reduction through the use of demonstrated Best Available Control Technology, calculated in current year dollars.

Criteria Pollutants: The Federal Clean Air Act required the Environmental Protection Agency to set air quality standards for common and widespread pollutants after preparing "criteria documents" summarizing scientific knowledge on their characteristics and potential health and welfare effects.

Today there are standards for six "criteria pollutants" for which State or National Ambient Air Quality Standards exist. These criteria pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and suspended particulate matter (PM₁₀ and PM_{2.5}). The USEPA and CARB periodically review new scientific data and may propose revisions to the standards as a result.

D

Design Value: For ozone, the state defines that a calculated design day is based on three years of data excluding: extreme values, values that result from exceptional events or values attributable to overwhelming transport from an upwind district. Under federal law, the design day for ozone (1-hour standard) is the fourth highest one-hour concentration experienced at an individual monitoring station during the past three years.

E

Electric Motor Vehicle: A motor vehicle, which uses a battery-powered electric motor as the basis of its operation. Such vehicles emit virtually no air pollutants. Hybrid electric motor vehicles may operate using both electric and gasoline powered motors. Emissions from hybrid electric motor vehicles are also substantially lower than conventionally powered motor vehicles.

EMFAC: The Emission Factor model used by ARB to calculate on-road mobile vehicle emissions.

Emission Budget: An emission "ceiling" for future transportation emissions that cannot be exceeded.

Emission Factor: For stationary sources, the relationship between the amount of pollution produced and the amount of raw material processed or burned. For mobile sources, the relationship between the amount of pollution produced and the number of vehicle miles traveled. By using the emission factor of a pollutant and specific data regarding quantities of materials used by a given source, it is possible to compute emissions for the source. This approach is used in preparing an emissions inventory.

Emission Forecasting: Estimating air pollutant emissions in future years using population, economic and control projections.

Emission Inventory: An estimate of the amount of pollutants emitted from mobile, stationary, area-wide, and natural sources into the atmosphere over a specific period such as a day or a year.

Emission Offsets: A rule-making concept whereby approval of a new or modified stationary source of air pollution is conditional on the reduction of emissions from other existing stationary sources of air pollution. These reductions are required in addition to reductions required by BACT.

Emission Reductions: The amount of emissions that will be reduced due to the implementation of a control measure. Emission reductions can be calculated by finding the product of the emissions and the composite efficiency, while accounting for existing control.

Emission Standard: The maximum amount of a pollutant that is allowed to be discharged from a polluting source such as an automobile or smoke stack.

Employment Centers: Locations having a concentration of jobs or employment. Centers may vary in size and density, serving sub-regional or local markets, generally meeting the needs of the immediate population.

Environmental Impact Report (EIR): A document discussing the potential adverse environmental impacts of a project required by the California Environmental Quality Act.

Ethanol: A clear liquid derived from biomass (also known as "ethyl alcohol" or "grain alcohol").

Evaporative Emissions: Emissions from evaporating gasoline, which can occur during vehicle refueling, vehicle operation, and even when the vehicle is parked. Evaporative emissions can account for two-thirds of the hydrocarbon emissions from gasoline-fueled vehicles on hot summer days.

Exceedance: Ambient pollutant concentrations measured above the applicable ambient air quality

standards.

Exhaust Gas Recirculation (EGR): An emission control method that involves recirculating exhaust gases from an engine back into the intake and combustion chambers. This lowers combustion temperatures and reduces NO_x.

Expected Peak Day Concentration (EPDC): A calculated value that represents the concentration expected to occur at a particular site once per year, on average. The calculation procedure uses measured data collected at the site during a three-year period. Measured concentrations that are higher than the EPDC are excluded from the state area designation process.

F

Facility: A structure, building, or operation that has one or more permitted pieces of equipment.

Feasible: Feasibility is most frequently used in the context of "feasible" stationary source control measures. In this context, feasible means Best Available Retrofit Control Technology (see definition, above).

Federal Clean Air Act (Federal Act): A federal law passed in 1970 and amended in 1977 and 1990, which forms the basis for the national air pollution control effort. Basic elements of the act include national ambient air quality standards for major air pollutants, air toxics standards, acid rain control measures, and enforcement provisions.

Federal Implementation Plan (FIP): In the absence of an approved State Implementation Plan (SIP), a plan prepared by the EPA which provides measures that nonattainment areas must take to meet the requirements of the Federal Clean Air Act.

Flexible Fuel Vehicle (FFV): A vehicle capable of operating on any combination of methanol, ethanol, and gasoline.

Fraction Reactive Organic Gases (FROG): The weight fraction of reactive organic gases in emissions of total organic gases from a source.

Fugitive Dust: Dust particles, which are introduced into the air through certain activities such as soil cultivation, off-road vehicles, or any vehicles operating on open fields or dirt roadways.

G

Gasoline Tolerant: A term used to describe vehicles that normally operate on methanol but can run on gasoline as well.

Growth Management Plan: A plan for a given geographical region containing demographic projections (i.e., housing units, employment, and population) through some specified point in time, and which provides recommendations for local governments to better manage growth and reduce projected environmental impacts.

H

Hazardous Air Pollutant (HAP): An air pollutant listed under section 112 (b) of the federal Clean Air Act as particularly hazardous to health. Emission sources of hazardous air pollutants are identified by USEPA, and emission standards are set accordingly.

Haze (Hazy): A phenomenon that results in reduced visibility due to the scattering of light caused by aerosols. Haze is caused in a large part by man-made air pollutants.

Health-Based Standard (Primary Standard): A dosage of air pollution scientifically determined to protect against human health effects such as asthma, emphysema, and cancer.

Hybrid Electric Vehicle (HEV): Hybrid electric motor vehicles may operate using both electric and gasoline-powered motors. Emissions from hybrid electric motor vehicles are also substantially lower than conventionally powered motor vehicles. (See also Electric Motor Vehicle.)

Hydrocarbons: Compounds containing various combinations of hydrogen and carbon atoms. They may be emitted into the air by natural sources (e.g., trees) and as a result of fossil and vegetative fuel combustion, fuel volatilization, and solvent use. Hydrocarbons are a major contributor to smog. (See also Reactive Organic Compounds).

Hydrogen Sulfide (H₂S): A colorless, flammable, poisonous compound having a characteristic rotten-egg odor. It is used in industrial processes and may be emitted into the air.

I

Incentives: Measures designed to encourage certain actions or behavior. These include inducements for the use of carpools, buses and other high-occupancy vehicles in place of single - occupant automobile travel. Examples include HOV lanes, preferential parking and financial incentives.

Indirect Source: Any facility, building, structure, or installation, or combination thereof, which generates or attracts mobile source activity that results in emissions of any pollutant (or precursor) for which there is a state ambient air quality standard. Examples of indirect sources include employment sites, shopping centers, sports facilities, housing developments, airports, commercial and industrial development, and parking lots and garages.

Indirect Source Control Program: Rules, regulations, local ordinances and land use controls, and other regulatory strategies of air pollution control districts or local governments used to control or reduce emissions associated with new and existing indirect sources.

Indirect Source Review: A major component of an indirect source control program, which applies to new and modified indirect sources. Strategies for indirect source review include permit programs, review and comment on new and modified indirect source projects through the California Environmental Quality Act (CEQA) process, and coordination of air quality, transportation and land use policies through local government general plans. Indirect source review reduces emissions from new and modified sources through best available mitigation measures and additional offsite mitigation such as offsets and mitigation fees.

Inspection and Maintenance Program: A motor vehicle inspection program implemented by the California Bureau of Automotive Repair. The purpose of I&M is to reduce emissions by assuring that cars are running properly. It is designed to identify vehicles in need of maintenance and to assure the effectiveness of their emission control systems on a biennial basis. Enacted in 1979 and strengthened in 1990. (Also known as the "Smog Check" program.)

Inversion: A layer of warm air in the atmosphere that prevents the rise of cooling air and traps pollutants beneath it.

L

Lead: A gray-white metal that is soft, malleable, ductile, and resistant to corrosion. Sources of lead resulting in concentrations in the air include industrial sources and crustal weathering of soils followed by fugitive dust emissions. Health effects from exposure to lead include brain and kidney damage and learning disabilities. Lead is the only substance, which is currently listed as both a criteria air pollutant and a toxic air contaminant.

Lead Agency: The public agency, which has the principal responsibility to carry out or approve a project.

Level of Service (LOS): A measure of the congested level on a highway facility or intersection based primarily on the comparison between the facility's capacity and the traffic volume it carries. Increasing levels of congestion are designated along a scale from A to F.

Light-Duty Vehicle (LDV): Any motor vehicle with a gross vehicle weight of 6000 pounds or less.

Liquefied Petroleum Gas (LPG): A gaseous byproduct of petroleum refining that is compressed to a liquefied form for sales. LPG consists of butane, propane, or a mixture of the two, and of trace amounts of propylene and butylene.

Local Agency: Any public agency other than a state or federal agency.

Low Emission Vehicle (LEV): The LEV standards for passenger cars represent a 70 percent reduction in gasoline-equivalent hydrocarbon and a 50 percent reduction in NO_x from ARB's 1994 standards.

Lowest Achievable Emission Rate (LAER): Under the Federal Clean Air Act, the rate of emissions that reflects (1) the most stringent emission limitation in the State Implementation Plan of any state for a given source unless the owner or operator demonstrates such limitations are not achievable; or (2) the most stringent emissions limitation achieved in practice, whichever is more stringent.

M

Maintenance Plan: In general, a plan that details the actions necessary to maintain air quality standards. In particular, the federal Clean Air Act requires maintenance plans for areas that have been redesignated as attainment areas.

Memorandum of Understanding (MOU): The Santa Barbara Association of Governments (SBCAG) is the regional agency responsible for preparing regional transportation plans and programs. Most of these programs require the participation of cities, the county, and other affected local agencies. A number of these programs also have implications to regional air quality plans such as the Clean Air Plan. Since SBCAG currently works with cities and the county on regional transportation programs, and because of the close interaction between many of these programs and the regional air quality plan, the APCD and SBCAG have entered into a MOU. Within this MOU, SBCAG is charged with developing the transportation elements of the plan, especially the transportation control measures, which essentially seek to reduce the use of the single passenger automobile and are implemented by a number of local agencies such as local cities and the county.

Methanol: A colorless, clear liquid derived from natural gas or coal (also known as "methyl alcohol" or "wood alcohol").

Methyl Tertiary Butyl Ether (MTBE): An ether compound added to gasoline to provide oxygen and enhance complete combustion. MTBE is being phased out of California's gasoline.

Mitigation: A change or alternative to the proposed project, which reduces or eliminates its significant adverse environmental impacts. Mitigation can be in the form of traditional offsets, transportation-based mitigation measures that are directly associated with the project under consideration, or mitigation fees to be used to secure off site mitigation.

Mobile Source: Sources of air pollution such as automobiles, motorcycles, trucks, buses, off-road vehicles, boats and airplanes. (Contrast with stationary sources.)

Model Rule: A generically formatted control measure, prepared as a guide for adoption by

regulatory agencies. Model rules have no force of law until they are adopted by a regulatory agency. Historically, model rules were prepared by the California Air Resources Board and given to local Air Pollution Control Districts for their consideration. The model rule process was replaced by the suggested control measure process. (See Suggested Control Measure).

N

National Ambient Air Quality Standards (NAAQS): Standards established by the United States EPA that apply for outdoor air throughout the country. There are two types of NAAQS. Primary standards set limits to protect public health and secondary standards set limits to protect public welfare

Natural Sources: Non-manmade emission sources, including biological and geological sources, wildfires, and windblown dust.

Net Emissions: The actual emissions occurring from a new or modified project after actual on site and off site mitigation, and other effective mitigation has been applied, as determined by the Air Pollution Control Officer.

New Source Review (NSR): A program used in development of permits for new or modified industrial facilities which are in a nonattainment area, and which emit nonattainment criteria air pollutants. The two major requirements of NSR are Best Available Control Technology and Emission Offsets.

Nitrogen Oxides (Oxides of Nitrogen, NO_x): A general term pertaining to compounds of nitric acid (NO), nitrogen dioxide (NO₂), and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO₂ is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility.

Nonattainment Area: A geographic area identified by the USEPA and/or ARB as not meeting either NAAQS or CAAQS standards for a given pollutant.

O

Opacity: The amount of light obscured by particle pollution in the atmosphere. Opacity is used as an indicator of changes in performance of particulate control systems.

Outer Continental Shelf: The area of the Pacific Ocean extending twenty-five miles out to sea from the State Tidelands (which extends three miles from the coastline).

Oxygenate: Any oxygen-rich substance added to gasoline to enhance octane and reduce carbon

monoxide emissions.

Ozone: A strong smelling, pale blue, reactive toxic chemical gas consisting of three oxygen atoms. It is a product of the photochemical process involving the sun's energy. Ozone exists in the upper atmosphere ozone layer as well as at the earth's surface. Ozone at the earth's surface causes numerous adverse health effects and is a criteria air pollutant. It is a major component of smog.

Ozone Precursors: Chemicals such as reactive organic compounds and oxides of nitrogen, occurring either naturally or as a result of human activities, which contribute to the formation of ozone, a major component of smog.

P

Particulate Matter (PM): Any material, except pure water, that exists in the solid or liquid state in the atmosphere, such as soot, dust, smoke, fumes, and aerosols. The size of particulate matter can vary from coarse, wind-blown dust particles to fine particle combustion products.

Particulate Matter less than 10 microns (PM₁₀): A criteria air pollutant consisting of small particles with an aerodynamic diameter less than or equal to a nominal 10 microns (about 1/7 the diameter of a single human hair). Their small size allows them to make their way to the air sacs deep within the lungs where they may be deposited and result in adverse health effects. PM₁₀ also causes visibility reduction.

Particulate Matter less than 2.5 microns (PM_{2.5}): A major air pollutant consisting of tiny solid or liquid particles, generally soot and aerosols. The size of the particles (2.5 microns or smaller, about 0.0001 inches or less) allows them to easily enter the air sacs deep in the lungs where they may cause adverse health effects, as noted in several recent studies. PM_{2.5} also causes visibility reduction.

Peak Period/Peak Hour Demand: The time of most intensive use of a service or facility. In terms of travel, generally there is a morning and an afternoon peak on streets and highways.

Permit: Written permission and authorization from a government agency that allows for the construction and/or operation of an emission generating facility or its equipment within certain specified limits or conditions.

Photochemical: Of, relating to, or resulting from the chemical action of radiant energy, especially sunlight.

Planning Inventory: Emissions inventory from which pollution from natural sources (e.g., seeps, vegetation) are excluded because they are currently not regulated by implementation of APCD rules.

Precursor: Any directly emitted pollutant that, when released into the atmosphere, forms or causes

to be formed or contributes to the formation of a secondary pollutant for which an ambient air quality standard has been adopted, or whose presence in the atmosphere will contribute to the violation of one or more ambient air quality standards.

Prevention of Significant Deterioration (PSD): A program used in development of permits for new or modified industrial facilities in an area that is already in attainment. The intent is to prevent an attainment area from becoming a non-attainment area. This program, like NSR, can require BACT and, if a standard is projected to be exceeded, Emission Offsets.

Public Transportation: Transportation service by bus, rail, airplane, and ship offered by an operator on a regular basis to the general public.

Public Workshop: A workshop held by a public agency for the purpose of informing the public and obtaining its input on the development of a regulatory action or control measure by that agency.

R

Reactive Organic Compound (ROC): A reactive chemical gas, composed of hydrocarbons, that reacts with nitrogen oxides and contributes to the formation of ozone. Also known as Volatile Organic Compounds (see VOC), or as Non-Methane Organic Compounds (NMOCs). The APCD considers all volatile compounds containing carbon *except* the following to be reactive: ethane, methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonates, methyl chloroform (TCA), methylene chloride (dichloromethane), CFC-11, CFC-12, HCFC-22, FC-23, CFC-113, CFC-114, CFC-115, HCFC-123, HCFC-134a, HCFC-141b, HCFC-142b.

Reactive Organic Gases (ROG): See reactive organic compound.

Reactivity: A measure of the tendency of a hydrocarbon species to react with nitrogen oxides to form atmospheric ozone.

Reasonable Further Progress: Annual incremental reductions in emissions of the relevant air pollutant and its precursors required to ensure attainment of the applicable air quality standard by the applicable date.

Reasonably Available Control Measures (RACM): A broadly defined term referring to technologies and other measures that can be used to control pollution. They include Reasonably Available Control Technology and other measures. In the case of PM₁₀, RACM refers to approaches for controlling small or dispersed source categories such as road dust, woodstoves, and open burning.

Reasonably Available Control Technology (RACT): Process changes and/or devices to minimize air pollution from mobile and stationary sources that are cost-effective and readily available.

Reformulated Gasoline: Also called Cleaner Burning Gasoline (CBG). Gasoline with a different composition from conventional gasoline (e.g., lower aromatics content) that results in the production of lower levels of air pollutants.

Regional Haze: The haze produced by a multitude of sources and activities, which emit fine particles and their precursors across a broad geographic area. National regulations require states to develop plans to reduce the regional haze that impairs visibility in national parks and wilderness areas.

Retrofit: Modification of a polluting device to make it less polluting.

Ridesharing: A cooperative effort of two or more people to travel together. Examples are carpools, vanpools, bus pools, trains, and public transit.

ROP Plan: The 1993 Rate-of-Progress Plan. The 1993 ROP Plan demonstrated that by 1996 existing and proposed control measures reduced emissions of reactive organic gases (ROG) to a level 15 percent below the 1990 baseline inventory.

S

Santa Maria Basin: An area of undersea oil reserves off the western coast of Santa Barbara County.

Secondary Pollutants: Pollutants not emitted directly, but formed in the atmosphere through chemical reactions or transformation of other pollutants (e.g., ozone).

Single Occupant Vehicle (SOV): A motor vehicle occupied by one employee for commute purposes, including motorcycles.

Smog: A combination of smoke, ozone, hydrocarbons, nitrogen oxides, and other chemically reactive compounds which, under certain conditions of weather and sunlight, may result in a murky brown haze that causes adverse health effects. The primary contributor to smog in California is motor vehicles.

Smog Check: A vehicle inspection and maintenance exam. Smog Check Program: (See Inspection and Maintenance Program.)

Smoke: A form of air pollution consisting primarily of particulate matter (i.e., particles). Other components of smoke include gaseous air pollutants such as hydrocarbons, oxides of nitrogen, and carbon monoxide. Sources of smoke may include fossil fuel combustion, agricultural burning, and other combustion processes.

Solvent: A substance that dissolves another to form a solution.

Source: Something that produces air pollution emissions. Sources can be stationary or mobile, and anthropogenic or natural.

State Implementation Plan (SIP): A comprehensive plan prepared by each state, mandated by the federal Clean Air Act, which describes the existing air quality conditions and measures which will be taken to attain and maintain national ambient air quality standards.

State Tidelands: The area of the Pacific Ocean within three miles of the shores of Santa Barbara County.

Stationary Source: A non-mobile structure, building, facility, equipment installation or operation. Examples include oil production facilities, industrial coating operations, a rock crushing facility, and factories that use large amounts of solvents. A stationary source is classified as having a common production process, located on one or more adjacent properties, and is under the same or common ownership, operation, or control. (Contrast with mobile sources.)

Stationary Source Control Measures: A control measure designed to limit the kind and amount of pollutants emitted from stationary sources.

Suggested Control Measure (SCM): A document upon which air pollution control rules and regulations can be based. The California Air Resources Board issues SCMs to provide guidance to districts in their consideration and development of rules and regulations. However, approval by the ARB of an SCM does not obligate the local districts to develop particular regulations for sources addressed by the SCM. Local districts have the latitude to develop regulations that are as stringent, more stringent, or less stringent than SCMs. The stringency of regulations that are developed by the local districts is usually based in part on the extent to which emissions reductions are needed to achieve compliance with the ambient air quality standards, in that district's area of jurisdiction, as well as other local considerations. The districts also consider the costs for achieving the emission reductions.

Sulfur Dioxide (SO₂): A strong smelling, colorless gas that is formed by the combustion of fossil fuels. Power plants, which may use coal or oil high in sulfur content, can be major sources of SO₂. SO₂ and other sulfur oxides contribute to the problem of acid deposition. SO₂ is a criteria pollutant.

T

Telecommuting: Working at a location other than the conventional office. This place may be the home, or an office other than the employee's primary office. Telecommuting employees can communicate with their offices by telephone.

Total Organic Gases (TOG): Reactive organic gases plus non-reactive organic gases.

Toxic Air Contaminant: An air pollutant, identified in regulation by the ARB, which may

cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health. TACs are considered under a different regulatory process (California Health and Safety Code Section 39650 et seq.) than pollutants subject to CAAQS. Health effects due to TACs may occur at extremely low levels, and it is typically difficult to identify levels of exposure, which do not produce adverse health effects.

Transitional Low Emission Vehicle (TLEV): TLEV vehicle standards will be 50 percent less hydrocarbon emissions than 1993 model-year conventional gasoline vehicles.

Transport: The act of emissions from one source being carried by wind to other locations.

Transportation Control Measure (TCM): Any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions. TCMs can include encouraging the use of carpools and mass transit. TCM's include both Transportation Demand Management and Transportation System Management measures.

Transportation Demand Management (TDM): The implementation of measures, which encourage people to change their mode of travel, or not to make a trip at all, (e. g., ridesharing, pricing incentives, parking management and telecommuting.)

Transportation System Management (TSM): The implementation of measures, which improve the efficiency of transportation infrastructure.

Trip: A single or one direction vehicle movement.

U

Ultra Low Emission Vehicle (ULEV): ULEV standards would lower gasoline-equivalent hydrocarbon emissions by 85 percent, carbon monoxide by 50 percent, and NO_x emissions by 50 percent, from 1993 levels.

United States Environmental Protection Agency (USEPA): The federal agency charged with setting policy and guidelines, and carrying out legal mandates for the protection of national interests in environmental resources.

V

Vapor Recovery Systems: Mechanical systems that collect and recover chemical vapors resulting from transfer of gasoline from operations such as tank-to-truck systems at refineries, tanker-to-pipeline systems at offshore oil operations, and pump-to-vehicle systems at gasoline stations.

Vehicle Miles Traveled (VMT): Number of miles traveled by a given vehicle in a specified time period. This number is sometimes estimated for the entire fleet of on road vehicles.

Violation: A number of measured exceedances of an applicable ambient air quality standard.

Visibility: The distance that atmospheric conditions allow a person to see at a given time and location. Visibility reduction from air pollution is often due to the presence of sulfur and nitrogen oxides, as well as particulate matter.

Volatile Organic Compound (VOC): This term is generally used similarly to the term "reactive organic compounds" but excludes ethane, which the federal government does not consider to be reactive. VOCs are hydrocarbon compounds that exist in the ambient air and contribute to the formation of smog and/or may themselves be toxic. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints.

Z

Zero Emission Vehicle (ZEV): A vehicle, which will maintain zero emissions throughout its lifetime.

GLOSSARY OF ACRONYMS

APCD	Air Pollution Control District
APCO	Air Pollution Control Officer
API	American Petroleum Institute
AQAP	Air Quality Attainment Plan
ARB	California Air Resources Board
ATCM	Air Toxic Control Measure
ATV	All Terrain Vehicle
AVR	Average Vehicle Ridership
BACT	Best Available Control Technology
BAMM	Best Available Mitigation Measures
BAR	Bureau of Automotive Repair
BARCT	Best Available Retrofit Control Technology
BBLs	Barrels
BOPD	Barrels of Oil Per Day
Btu	British thermal unit
CAC	Community Advisory Council
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act of 1988
CCC	California Coastal Commission
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CES	Category of Emission Source (for Area-Wide Sources)
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality
CMP	Congestion Management Program
CNG	Compressed Natural Gas
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
District	Santa Barbara County Air Pollution Control District
DMV	Department of Motor Vehicles
DOG	Department of Oil and Gas (California)
DPR	Department of Pesticide Regulation
EDS	Statewide Emission Data System
EIR	Environmental Impact Report
EPA	Environmental Protection Agency (United States)
ERC	Emissions Reduction Credit
ERF	Environmental Research Foundation
EtO	Ethylene Oxide
FCAA	Federal Clean Air Act

FCAAA	Federal Clean Air Act Amendments
FFV	Flexible Fuel Vehicle
FIP	Federal Implementation Plan
FMVCP	Federal Motor Vehicle Control Program
FROG	Fraction Reactive Organic Gases
FPM10	Fraction Particulate Matter Less Than 10 Microns in Diameter
FTIP	Federal Transportation Improvement Program
FTP	Federal Emissions Test Procedure
GVR	Gasoline Vapor Recovery
H&SC	Health & Safety Code
HAP	Hazardous Air Pollutant
H ₂ S	Hydrogen Sulfide
HC	Hydrocarbons
HDT	Heavy Duty Truck
HDV	Heavy Duty Vehicle
HOV	High Occupancy Vehicle
Hp	Horsepower
IC	Internal Combustion
IMPROVE	Interagency Monitoring of Protected Visual Environments Program
I&M	Inspection and Maintenance
IPM	Integrated Pest Management
IRTA	Institute for Research & Technical Assistance
ISTEA	Intermodal Surface Transportation Efficiency Act
ISR	Indirect Source Review
ITG	Innovative Technology Group
LAER	Lowest Achievable Emission Rate
LDT	Light Duty Truck
LDV	Light Duty Vehicle
LEV	Low Emission Vehicle
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
M	Thousand
MM	Million
M85	85 percent Methanol/15 percent Gasoline Fuel
MDT	Medium Duty Truck
MDV	Medium Duty Vehicle
MMBTU	Million British Thermal Units
MMSCFD	Million Standard Cubic Feet Per Day
MOU	Memorandum of Understanding
MSCF	Thousand Standard Cubic Feet
MTBE	Methyl Tertiary-Butyl Ether
MVFF	Motor Vehicle Fueling Facility (Gas Station)
MVRF	Motor Vehicle Refurbishing Facility (Auto Body Repair Shop)
MVIP	Motor Vehicle Inspection Program
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Protection Act

NESHAPS	National Emission Standards for Hazardous Air Pollutants
NGL	Natural Gas Liquids
NMHC	Non-Methane Hydrocarbons
NO	Nitric Oxide
NO ₂	Nitrogen Dioxide
NO _x	Oxides of Nitrogen
NOV	Notice of Violation
NSPS	New Source Performance Standards
NSR	New Source Review
O ₃	Ozone
OCS	Outer Continental Shelf
OVA	Organic Vapor Analyzer
PAM	Photochemical Assessment Monitoring Station
PAN	Peroxyacyl Nitrate
Pb	Lead
PM	Particulate Matter
PM ₁₀	Particulate Matter Less Than 10 Microns in Diameter
ppb	Parts Per Billion
pphm	Parts Per Hundred Million
ppm	Parts Per Million
PSD	Prevention of Significant Deterioration
psi	Pounds Per Square Inch
PSI	Pollution Standards Index
psia	Pounds Per Square Inch Absolute Pressure
PVC	Polyvinyl Chloride
PVRV	Pressure Vacuum Relief Valves
RACT	Reasonably Available Control Technology
RHC	Reactive Hydrocarbons - same as ROG
RMD	Resource Management Department (Santa Barbara County)
ROC	Reactive Organic Compounds - same as ROG
ROG	Reactive Organic Gases - same as ROC
ROP	Rate-of-Progress Plan
RTP	Regional Transportation Plan
RVP	Reid Vapor Pressure
SARA	Superfund Amendment and Reauthorization Act
SBCAPCD	Santa Barbara County Air Pollution Control District
SBCAG	Santa Barbara County Association of Governments
SBMTD	Santa Barbara Metropolitan Transportation District
SCC	Source Classification Code (for Stationary Sources)
SCCAB	South Central Coast Air Basin
SCCCAMP	South Central Coast Cooperative Aerometric Monitoring Program
scf	Standard Cubic Feet
SCOS	Southern California Ozone Study
SCR	Selective Catalytic Reduction
SIC	Standard Industrial Classification Code
SIP	State Implementation Plan

SLAMS	State and Local Air Monitoring Stations
SO ₂	Sulfur Dioxide
SO ₄	Sulfates
SOX	Oxides of Sulfur
SOV	Single-Occupant Vehicle
SUV	Sport Utility Vehicle
TAC	Toxic Air Contaminant
TCM	Transportation Control Measure
TDM	Transportation Demand Management
THC	Total Hydrocarbons
TLEV	Transitional Low Emission Vehicle
TMP	Transportation Management Plan
TOC	Total Organic Compounds
TOG	Total Organic Gases
TPD	Tons Per Day
TPY	Tons Per Year
TSM	Transportation Systems Management
TSP	Total Suspended Particulates
UAM	Urban Airshed Model
ug	Microgram
ug/m ³	Micrograms Per Cubic Meter
ULEV	Ultra-Low Emission Vehicle
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VRS	Vapor Recovery System
ZEV	Zero Emission Vehicle

