

ADDENDUM TO THE WEST ROSEVILLE SPECIFIC PLAN ENVIRONMENTAL IMPACT REPORT (SCH # 2002082057, ADOPTED FEBRUARY 2, 2004) AND THE FIDDYMENT RANCH SPECIFIC PLAN AMENDMENT 3 SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (SCH # 2010082075, ADOPTED APRIL 16, 2014) FOR THE FIDDYMENT PLAZA PROJECT (FILE # PL19-0013)

## APPENDIX A

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PLACER COUNTY APCD  
 110 Maple Street  
 Auburn, CA 95603  
 (530) 745-2330 - Fax (530) 745-2373

**Authority to Construct  
 Temporary Permit To Operate**

**ISSUED TO**

DHILLON AND SONS ENTERPRISES  
 201 BELLINGHAM COURT  
 ROSEVILLE, CA 95747

**AC NUMBER: AC-18-G-09**

**FACILITY LOCATION**

DHILLON AND SONS ENTERPRISES  
 4701 FIDDYMENT ROAD  
 ROSEVILLE, CA 95747

**EXPIRATION DATE: 08/09/2020**

*Erik C. White for*

**Erik C. White  
 Air Pollution Control Officer**

**ISSUE DATE: 7/10/2019**

**PROCESS DESCRIPTION:** INSTALLATION OF A NEW RETAIL GASOLINE DISPENSING FACILITY WITH PHASE I EVR AND PHASE II EVR

**EQUIPMENT**

Equipment	Rating
01 Gasoline Dispensing Facility - 10 Nozzles	10.00 NOZ
02 Phase I - OPW EVR System - VR-102 Series	
03 Phase II - EVR VR-204 with ISD and Clean Air Separator	

	<b>NOZ</b>
<b>Total</b>	10.00

**OPERATING CONDITIONS**

- OC-1** The gasoline dispensing facility shall not dispense more than 1,008,000 gallons of gasoline per calendar year without obtaining prior written approval from the District.
- OC-2** The Phase I and Phase II Enhanced Vapor Recovery Systems are subject to the Executive Orders listed in the Equipment descriptions and their associated CARB approved Installation, Operation, and Maintenance Manual and any applicable CARB Approval letters.

- OC-3** All components of the Phase I and Phase II vapor recovery systems, including all associated underground plumbing, shall be installed, operated, and maintained in accordance with the California Air Resources Board (CARB) most current Executive Orders and the specifications in the CARB approved Installation, Operation, and Maintenance (IOM) Manual and any applicable CARB Approval letters and the Authority to Construct issued for the installation at this site.
- OC-4** Only the equipment listed in Exhibit 1 of the Executive Orders, unless exempted in writing by CARB shall be installed and shall be clearly identified by the permanent identification number showing the manufacturer's name and model number as required by the Executive Orders.
- OC-5** A copy of the applicable CARB Executive Orders, the corresponding IOMs, and any applicable CARB Approval letters, shall be maintained at this facility as long as the certified Phase I and Phase II systems are installed.
- OC-6** Installation, maintenance, and repair of system components, including removal and installation of such components in the course of any required tests, shall be performed by technicians certified by the appropriate manufacturer unless otherwise specified in the IOM. Additional certifications may be required in accordance with local district requirements.
- OC-7** The Phase II vapor recovery equipment shall be inspected weekly, quarterly, and annually per the procedures identified in the CARB Approved IOM Manual. Only a technician certified by the appropriate manufacturer can service any problems discovered while conducting the Weekly, Quarterly, and Annual inspection/testing. Provided that there are no other local district requirements, an owner/operator can remove and install nozzles, curb hoses, breakaways, flow limiters and whip hoses without a manufacturer's certification.
- OC-8** A vapor collection sleeve (VST nozzle) or a vapor collection bellows (EMCO nozzle), shall be installed at the base of the spout.
- OC-9** Any nozzle with the following defects must be replaced or repaired according to the CARB Approved IOM. Sheared or bent spouts must be replaced.
- A. VST Nozzle
- i. The nozzle collection sleeve has greater than 18 inches total length of cuts or if greater than 0.4 square inches of material is missing.
  - ii. The nozzle face plate has greater than 30% of the material missing or greater than 2.5 inches of the accumulated faceplate circumference is missing.
- B. EMCO Nozzle
- i. Greater than 0.4 square inches of boot face material is missing (e.g. a triangular or similar shape in which greater than 7/16 inches of the boot face circumference is missing (accumulated)).
  - ii. A cut across seven (7) consecutive bellows convolutions.
  - iii. A 360 degree cut around the bellows convolutions.
- OC-10** Any nozzle with a defective vapor valve, as determined by Exhibit 7 or when the vapor valve has a leak rate that exceeds 0.07 cubic feet per minute at a pressure of two (2) inches WC as determined by TP-201.2B, shall be immediately removed from service.
- OC-11** The maximum length of the hose assembly, including the curb hose, whip hose, and breakaway, shall be no more than fifteen (15) feet.
- OC-12** Any hose configuration is allowed when installed in accordance with the applicable IOM.
- OC-13** Any hose with a visible opening is considered a defect and must be replaced.
- OC-14** Testing is required after reconnecting the breakaway to ensure proper operation and no observed leaks. The procedure for reconnecting the breakaway and fueling point testing after a drive-off shall be conducted to verify that the breakaway, hose and nozzle are operating properly after a drive-off.
- OC-15** No flow limiters are allowed for this system.

- OC-16** The Clean Air Separator is a passive tank pressure management system with no electrical requirements. A Clean Air Separator that fails the leak decay test shall be considered a defect. Unless there is maintenance or testing being conducted on the Clean Air Separator, the four ball valves shall be locked in the positions for normal operation. A Clean Air Separator that is not in the proper operating configuration shall be considered a defect.
- OC-17** The system shall be removed from service when the Clean Air Separator fails the leak decay test.
- OC-18** The Clean Air Separator can be installed up to 100 feet from the vent line(s), provided that the piping is sloped 1/8" per foot minimum toward the vent line(s).
- OC-19** The Air Breather Assembly for the Clean Air Separator shall be installed at least twelve feet (12') above grade.
- OC-20** Copies of the manufacturer's warranty for the system and/or components shall be made available to the facility owner/operator and a warranty tag shall be affixed as required in the CARB Certification Procedure.
- OC-21** All vapor return and vent lines shall be a minimum nominal internal diameter of 2 inches from the dispensers to the first manifold. All lines after the first manifold and back to the underground storage tank shall have a minimum nominal internal diameter of 3 inches.
- OC-22** All vapor return lines shall have a minimum slope of 1/8 inch per foot from the dispenser riser to the riser of the UST. A slope of ¼ inch or more per foot is recommended whenever feasible.
- OC-23** Any dispenser with a dispenser piping test valve in the closed position shall be considered a defect.
- OC-24** For facilities without In-Station Diagnostics (ISD) equipment, if 600,000 gallons of gasoline or greater is dispensed in a calendar year, ISD equipment shall be installed by November 1st of the following year.
- OC-25** For facilities with ISD, warning and failure alarms may only be cleared by a certified technician. The only exception to this are the alarms specifically listed in CARB Overpressure Alarm Advisory 405-D, or a subsequent update, that occur between November 1 – March 31. Dispensing may only be re-enabled following shutdown of the submersible pumps to all gasoline tanks by the ISD systems by a certified technician.
- OC-26** For facilities with a Liquid Condensate Trap (LCT), the Liquid Level Sensor audible alarm shall be installed at a location that is most likely to be heard by the station attendant during normal station operation (e.g. cash register).
- OC-27** For facilities with a LCT, a metal tag specifying the capacity of the LCT shall be installed and maintained as specified in the Installation, Operation, and Maintenance Manual.
- OC-28** Instructions for the proper operation of vapor recovery equipment shall be conspicuously posted.
- OC-29** The conditions of this Permit to Operate may reflect some but not all applicable requirements. The owner/operator is solely responsible for compliance with all applicable regulations.

### **RECORDKEEPING AND REPORTING**

- RR-1** Each owner/operator shall keep a Maintenance Log Book on site detailing the maintenance and inspections performed at the facility per the applicable executive order(s). This includes the weekly, quarterly and annual inspections. Forms for the inspections can be found in the appropriate CARB Approved IOMs and are available from the District. The maintenance records shall include the maintenance, annual test date, repair date to correct test failure, maintenance or test performed, affiliation, telephone number, name and Certified Technician Identification Number of the individual conducting maintenance or test. Such records shall be maintained on site for at least two years and made available to the District upon request.
- RR-2** Maintenance shall be conducted in accordance with Approved Installation, Operation and

Maintenance Manuals. RECONNECTION of breakaways shall be included in the maintenance records.

- RR-3** If an ISD system is installed, the operator/owner shall keep records of all alarms detected by the ISD system. Alarm History records shall be maintained on site in accordance with district requirements. The records shall include the alarm date, the nature of the alarm, type of test and test date to verify the validity of ISD alarm, maintenance or repair date to correct the cause of the alarm, maintenance or repair performed to correct the cause of the alarm, affiliation, telephone number, name and Certified Technician Identification Number of individual conducting maintenance or test. Additional information may be required in accordance with local district requirements.
- RR-4** A record of the throughput (i.e. gasoline dispensed, in gallons) shall be made and kept on site for at least two years, pursuant to Rule 410, Record-keeping for Volatile Organic Compound Emissions. This information shall be made available to the District upon request and at the time of annual permit renewal.

### **PERFORMANCE TESTING**

- PT-1** Performance tests, using the most recent versions of the test procedures, are required for both new and modified facilities, and for existing facilities. Tests for new or modified facilities shall be successfully conducted within 30 days of startup. Annual tests for existing facilities shall be conducted at least once in each 12 month period. All test results shall be submitted to the District within 30 days following completion of the tests.
- PT-2** Notice of time and date of proposed testing shall be given to the District at least 15 days prior to the scheduled testing, unless otherwise agreed to by the District. The District must approve the proposed test schedule. Testing outside of District business hours may be approved on a case-by-case basis. Communication regarding vapor recovery testing can be sent by email to [vaporrecoverytesting@placer.ca.gov](mailto:vaporrecoverytesting@placer.ca.gov).
- PT-3** Perform the weekly and quarterly inspections prior to the Annual Inspection/Testing. Forms for the annual Inspection/Testing are found in the appropriate Executive Order in the Installation, Operation and Maintenance Manual.

- PT-4** The following tests are required for startup of new or modified systems and annually.
- A. A Nozzle Bag Test shall be conducted as outlined in Executive Order VR-203 or VR-204.
  - B. A test for the Determination of Static Pressure Performance of the Healy Clean Air Separator shall be conducted as outlined in Executive Order VR-203 or VR-204. If there is insufficient vacuum, a positive pressure decay procedure shall be conducted as outlined Executive Order VR-203 or VR-204.
  - C. The Static Torque of Rotatable Phase I Adaptor Test, CARB Source Test Procedure 201.1B shall be conducted.
  - D. The Pressure Integrity of Drop Tube/Drain Valve Test, CARB Source Test Procedure 201.1C or Leak Rate of Drop Tube Overfill Prevention Device and Spill Container Drain Valve, TP 201.1D, as appropriate, shall be conducted.
  - E. Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, CARB Source Test Procedure 201.3. Prior to conducting this test, the tester shall document that each step was followed prior to conducting this source test procedure by utilizing the form in VR-203 or VR-204.
  - F. A Dynamic Pressure Performance Test, CARB Source Test Procedure 201.4.
  - G. The Liquid Removal Test Procedure shall be conducted as per Executive Order VR-203 or VR-204. If the Option 1 test passes, Option 2 is not required. If Option 2 is performed, the liquid removal requirement is applicable to all grades of gasoline.
  - H. If ISD is installed, the Veeder-Root or Incon ISD Operability Test Procedure provided in Executive Order VR-204, shall be used at GDF sites to determine the operability of the Veeder-Root or Incon ISD system to comply with applicable performance standards and performance specification in CP-201. Testing the ISD equipment in accordance with this procedure will verify the proper selection, setup and operation of the TLS Console sensors and interface modules.
  - I. If the facility contains a Liquid Condensate Trap, the LCT Compliance Test, as out
- PT-5** Failure to conduct the Annual Testing or submit the results within 30 days can result in a monetary penalty. All tests listed above are to be conducted unless otherwise specified.

### PERMIT EMISSION LIMIT CONDITIONS

- EL-1** No emissions are permitted, from any source, which are a nuisance per District Rule 205, Nuisance.
- EL-2** The emissions from the operations and equipment listed on this permit shall not exceed the following rates:

POLLUTANT	LBS/DAY	LBS/QTR	TPY
Volatile Organic Compounds (VOCs)	4.93	129	0.26

### GENERAL CONDITIONS

- GC-1** This permit shall be maintained on the premises of the subject equipment. (Rule 501)
- GC-2** The equipment must be properly maintained and kept in good operating condition and shall be leak free and vapor tight as per the California Code of Regulations Title 17, Section 93101.
- GC-3** Failure to maintain the vapor recovery equipment may result in a penalty for each "Out of Order" defect or for each 7-day deficiency not corrected in 7 days.

- GC-4** Performance testing observation and inspection will be charged at the current District hourly rate for recovery of costs.
- GC-5** The authorized District agents shall have the right of entry to any premises on which an air pollution emission source is located for the purpose of inspecting such source, including securing samples of emissions there from, or any records required to be maintained therewith by the District. (Rule 402)
- GC-6** In the event of any violation of District Rules and Regulations the station manager shall cease operation of violating equipment and take action to end such violation.
- GC-7** The District must be notified of any upset or breakdown of emission control or associated equipment pursuant to District Rule 404, Upset Conditions, Breakdown or Scheduled Maintenance.
- GC-8** Revisions of this permit may be requested pursuant to District Rule 501, General Permit Requirements, Section 400.
- GC-9** Compliance of the permitted facility is required with the provisions of the "Air Toxics 'Hot Spots' Information and Assessment Act" of 1987 (Health and Safety Code Sections 44300 et seq.).
- GC-10** Prior to the installation, modification or replacement of any equipment for which an Authority to Construct is required pursuant to Health and Safety Code, Section 42300, and District Rule 501, General Permit Requirements, Section 300, an Authority to Construct application shall be filed with the District. This includes a Change of Ownership or name.
- GC-11** The applicant/Permittee has an obligation to defend and indemnify the District against third party challenges in accordance with District Rule 411, Indemnification.



110 Maple Street, Auburn, CA 95603 • (530) 745-2330 • Fax (530) 745-2373 • [www.placerair.org](http://www.placerair.org)

Erik C. White, Air Pollution Control Officer

## COMPLETION OF CONSTRUCTION NOTIFICATION

Upon completion of equipment construction and within seven (7) days of initial operation, please fill out the following information and submit a copy of this form to Zach Lee by mail at 110 Maple Street, Auburn, CA 95603 or by email at [zlee@placer.ca.gov](mailto:zlee@placer.ca.gov). This form notifies the District that the equipment is ready for inspection. The District will contact you to schedule an inspection.

**Company Name:** DHILLON AND SONS ENTERPRISES

**Authority to Construct #:** AC-18-G-09

**Date Construction Complete:** \_\_\_\_\_

**Date Operation Began/Will Begin:** \_\_\_\_\_

**Company Contact:** \_\_\_\_\_

**Contact Phone Number:** \_\_\_\_\_

**Print Name of Responsible Official:** \_\_\_\_\_

**Signature of Responsible Official:** \_\_\_\_\_

PCAPCD Air Quality Permitting

State law gives local air pollution control districts “the primary responsibility for control of air pollution from all sources, other than emissions from motor vehicles.” (Health & Safety Code, § 40000.) Pursuant to this authority, the Placer County APCD requires that gas stations obtain a permit known as an “Authority to Construct” prior to building the facility and another annual permit known as a “Permit to Operate” before dispensing gasoline. The APCD’s Rules and Regulations require denial of these permits if the proposed gas station’s air emissions would violate federal, State or local air quality standards. (Placer County APCD, Rules and Regulations, Rule 501, § 303, and Rule 502, § 408.) In addition to controlling the emission of various “criteria pollutants,” the APCD’s permits will address any potential emission of Toxic Air Contaminants from gas stations, including benzene. The APCD will review the proposed “annual throughput” for the gas station and will place any necessary restrictions on the operation to ensure that the facility’s emissions of TACs do not exceed the APCD’s established “health risk” threshold of 10 in 1 million. (See PCAPCD Advisory Notice for Gasoline Dispensing Facilities) Notably, this “10 in 1 million” threshold is identical to the APCD’s CEQA threshold of significance for TACs. Accordingly, it can be said with certainty that a gas station which must obtain an Authority to Construct and Permit to Operate from APCD will not result in any significant TAC emission impacts.

## RULE 501 GENERAL PERMIT REQUIREMENTS

Adopted 12-08-70

(Amended 05-09-72, 11-12-74, 05-24-77, 06-19-79, 09-21-93, 11-03-94, 12-09-04, 8-12-10)

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**100 GENERAL**

- 101 PURPOSE:** To provide an orderly procedure for the review of new sources of air pollution and modification and operation of existing sources through the issuance of permits. Procedures for issuing, modifying, or renewing Title V Permits to Operate for stationary sources that are subject to Rule 507, FEDERAL OPERATING PERMIT PROGRAM, shall also be consistent with the procedures specified in that rule.
- 102 EXEMPTION RECORDKEEPING:** Records must be maintained to substantiate the following exemptions. Records must be maintained on site and made available to the District upon request.
- 110 EXEMPTION, GENERAL:** An Authority to Construct and Permit to Operate shall not be required for the equipment listed in Sections 111 to 122, unless an emissions unit is:
- 110.1 Subject to New Source Performance Standards, except engines less than 50 horsepower subject to NSPS JJJJ, Standards of Performance for Stationary Spark Ignition ICE; or
  - 110.2 Subject to National Emission Standards for Hazardous Air Pollutants; or
  - 110.3 Subject to the requirements of Rule 507, FEDERAL OPERATING PERMIT PROGRAM; or
  - 110.4 Emits, in levels deemed appropriate for review by the Air Pollution Control Officer, substances identified as a toxic air contaminant or which are under review pursuant to Health and Safety Code Section 39650 et seq.; or
  - 110.5 The Air Pollution Control Officer makes a determination that the emission unit may not operate in compliance with the District Rules and Regulations; or
  - 110.6 An emissions unit or stationary source for which emission reduction credits have been requested or granted in accordance with Rule 504, EMISSION REDUCTION CREDITS.
  - 110.7 An otherwise exempt piece of equipment that is part of a process that requires a permit.
- 111 EXEMPTION, MOBILE SOURCES:**
- 111.1 Engines used to propel mobile equipment or a motor vehicle of any kind, but not including any article, machine, equipment or other contrivance mounted on such a vehicle that would otherwise require a permit under the provisions of these rules and regulations.
  - 111.2 Locomotives, airplanes and watercraft used to transport passengers or freight. This exemption shall not apply to equipment used for dredging of waterways or equipment used in pile driving adjacent to or in waterways.
- 112 EXEMPTION, COMBUSTION AND HEAT TRANSFER EQUIPMENT:**
- 112.1 Internal combustion engines with a manufacturer's maximum continuous rating of 50 brake horsepower or less or gas turbine engines with a maximum heat input rate of 3,000,000 British Thermal Units (Btu) per hour or less at ISO standard day conditions (288 degrees Kelvin, 60 percent relative humidity, and 101.3

kilopascals pressure). The ratings of all engines or turbines used in the same process will be accumulated to determine whether this exemption applies.

- 112.2 Any combustion equipment that has a maximum heat input of less than 1,000,000 Btu per hour (gross) and is equipped to be fired exclusively with natural gas, liquefied petroleum gas or any combination thereof. The ratings of all combustion equipment used in the same process will be accumulated to determine whether this exemption applies.
- 113 EXEMPTION, RESIDENTIAL STRUCTURES:** Equipment utilized exclusively in connection with any structure, when the structure is designed for and used exclusively as a dwelling for not more than four families.
- 114 EXEMPTION, AGRICULTURAL OPERATIONS:** Equipment used exclusively in the growing of agricultural crops, or in the commercial raising of fowl or other animals. This exemption does not apply to an agricultural source, as defined in this Rule, that is:
- 114.1 A Major Stationary Source or Major Modification, as defined in Rule 502, NEW SOURCE REVIEW, or
- 114.2 A stationary source that emits in any 12-month period air contaminant emissions equal to or more than the following quantities of emissions:
- 50 percent of the major source thresholds for regulated air pollutants (excluding HAPs);
  - 5 tons per year of a single HAP;
  - 12.5 tons per year of any combination of HAPs; and
  - 50 percent of any lesser threshold for a single HAP as the U.S. EPA may establish by rule.
- 115 EXEMPTION, COOLING SYSTEMS AND VACUUM CLEANING:** Refrigeration, air conditioning, ventilating, or vacuum cleaning systems not designed to remove air contaminants generated by equipment which would require a permit under these rules and regulations.
- 116 EXEMPTION, COOLING TOWERS:** Water cooling towers that have a circulation rate of less than 10,000 gallons per minute and which are not used for the cooling of process water, water from barometric jets, or water from barometric condensers.
- 117 EXEMPTION, STORAGE AND TRANSFER:** Tanks, reservoirs, vessels or other containers and their associated dispensing, pumping and compression systems used exclusively for the storage of:
- 117.1 Liquefied or compressed gases.
- 117.2 Unheated organic materials with an initial boiling point of 150 degrees Celsius (302 degrees Fahrenheit) or greater, as determined by the testing procedure specified in Section 501.2, or with an organic vapor pressure of 5 mm Hg (0.1 psia) or less at 20°C, as determined by the testing procedure specified in Section 501.3.
- 117.3 Organic liquids with a vapor pressure of 77.5 mm Hg (1.5 psia) or less at 20°C, as determined by the testing procedure specified in Section 501.3, stored in containers having a capacity of 23,000 liters (6076 gallons or less). Equipment used exclusively for the transfer of organic liquids with a vapor pressure of 77.5 mm Hg (1.5 psia) at 20°C to or from storage.

117.4 Unheated solvent dispensing containers of 380 liters (100 gallons) capacity or less.

**118 EXEMPTION, SURFACE COATING AND PREPARATION:**

118.1 Water solution containing no more than two percent volatile organic compounds by weight for surface preparation, cleaning, stripping, etching (other than chemical milling) or the electrolytic plating with electrolytic polishing of, or the electrolytic stripping of brass, bronze, cadmium, copper, iron lead, nickel, tin, zinc, and precious metals.

118.2 Surface coating operations using a combined total of one gallon per day or less of coating material and solvent.

118.3 Unheated non-conveyorized solvent rinsing containers or unheated non-conveyorized coating dip tanks of 380 liters (100 gallons) capacity or less with an open surface area of one square meter (11 square feet) or less providing no more than 25 gallons of solvent are evaporated or lost to the atmosphere from all such equipment per calendar year.

**119 EXEMPTION, FOOD PROCESSING:** The following processing equipment for food or other human consumables and exhaust systems or collectors serving exclusively such equipment:

119.1 Used in eating establishments for the purpose of preparing food for human consumption.

119.2 Smokehouses in which the maximum horizontal inside cross sectional area does not exceed 2 square meters (21.5 square feet).

119.3 Mixers and blenders used in bakeries.

119.4 Confection cookers.

119.5 Used exclusively to grind, blend or package tea, cocoa, spices, or roasted coffee.

**120 EXEMPTION, LABORATORY EQUIPMENT:** Laboratory equipment used exclusively for chemical or physical analysis and bench scale tests, including associated vacuum-producing equipment.

**121 EXEMPTION, REPAIRS AND MAINTENANCE:** Repairs or maintenance not involving changes to any equipment for which a permit has been granted under Section 301 of this rule.

**122 EXEMPTION, OTHER EQUIPMENT:** Unless subject to the requirements of Rule 507, FEDERAL OPERATING PERMIT PROGRAM, other equipment authorized for exemption by the Air Pollution Control Officer and which would emit less than 2 pounds in any 24 hour period of any pollutants without the benefit of air pollution control devices.

**200 DEFINITIONS:** Unless otherwise defined below, the terms used in this rule are defined in Rule 502, NEW SOURCE REVIEW; Rule 504, EMISSIONS REDUCTION CREDITS; and Rule 102, DEFINITIONS; and apply in hierarchical order.

**201 ADMINISTRATIVE PERMIT AMENDMENT:** An amendment to a Permit to Operate which:

- 201.1 Corrects a typographical error; or
- 201.2 Identifies a minor administrative change at the stationary source; for example, a change in the name, address, or phone number of any person identified in the permit; or
- 201.3 Requires more frequent monitoring or reporting by a responsible official of the stationary source; or
- 202 AGRICULTURAL SOURCE OF AIR POLLUTION OR AGRICULTURAL SOURCE:** A source of air pollution or a group of sources used in the production of crops, or the raising of fowl or animals located on contiguous property under common ownership or control, including, but not limited to the following criteria:
- 202.1 Is a confined animal facility, including, but not limited to, any structure, building, installation, barn, corral, coop, feed storage area, milking parlor, or system for the collection, storage, treatment, and distribution of liquid and solid manure, if domesticated animals, including, but not limited to, cattle, calves, horses, sheep, goats, swine, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.
- 202.2 Is an internal combustion engine used in the production of crops or the raising of fowl or animals, including, but not limited to, an engine subject to Section 41750 of the California Health & Safety Code, except an engine that is used to propel implements of husbandry, as that term is defined in Section 36000 of the Vehicle Code, as that section existed on January 1, 2003.
- 203 ANNIVERSARY DATE:** The day and month of issuance of a Permit to Operate and that same day and month of each succeeding year.
- 204 APPLICABLE REQUIREMENTS:** Air quality requirements with which a facility must comply pursuant to the District's regulations, codes of California statutory law, the Federal Clean Air Act as amended in 1990 and implementing regulations, other provisions of the United States Code, and the Code of Federal Regulations.
- 205 AUTHORITY TO CONSTRUCT:** A preconstruction permit authorizing construction prior to the starting of construction and conforming to the requirements of Rule 502, NEW SOURCE REVIEW.
- 206 COMMENCE:** As applied to construction, means that the owner or operator has all of the necessary permits or approvals required under state and federal air quality control laws, District Rules and Regulations, and those air quality control laws and regulations which are part of the California State Implementation Plan, and has:
- 206.1 Begun, or caused to begin, a continuous program of on-site construction of the source, to be completed in a reasonable time; or
- 206.2 Entered into binding agreements or contractual obligations which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.
- 207 CONTIGUOUS PROPERTY:** Two or more parcels of land with a common boundary or separated solely by a public roadway or other public right-of-way.

- 208 EMISSIONS UNIT:** An identifiable operation or piece of process equipment such as an article, machine, or other contrivance which controls, emits, may emit, or results in the emissions of any air pollutant directly or as fugitive emissions.
- 209 REGULATED POLLUTANT:** A pollutant for which an Ambient Air Quality Standard has been established by the EPA or by the California Air Resources Board (ARB), and the precursors to such pollutants.
- 210 RESPONSIBLE OFFICIAL:** An individual with the authority to certify that a source complies with all applicable requirements, including the conditions of permits issued to sources in accordance with Regulation 5, PERMITS. A "responsible official" means one of the following:
- 210.1 For a corporation, a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
    - 210.1.1 The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
    - 210.1.2 The delegation of authority to such representative is approved in advance by the Air Pollution Control Officer;
  - 210.2 For a partnership or sole proprietorship, a general partner or the proprietor, respectively; or
  - 210.3 For a municipality, state, federal, or other public agency, either a principal executive officer or a ranking elected official; or
  - 210.4 For an acid rain unit subject to Title IV (Acid Deposition Control) of the Clean Air Act, the "responsible official" is the designated representative of that unit for any purposes under Title IV and Rule 507, FEDERAL OPERATING PERMIT PROGRAM.
- 211 STARTUP:** means the setting in operation of a stationary source or emission unit for any purpose.
- 212 STATIONARY SOURCE (SOURCE OR FACILITY):** Any building, structure, facility, or emissions unit which emits or may emit any regulated pollutant directly or as fugitive emissions.
- 212.1 Building, structure, facility, or emissions unit includes all pollutant emitting activities which:
    - 212.1.1 Belong to the same industrial grouping; and
    - 212.1.2 Are located on one property or on two or more contiguous properties; and
    - 212.1.3 Are under the same or common ownership, operation, or control or which are owned or operated by entities which are under common control.

212.2 Pollutant emitting activities shall be considered as part of the same industrial grouping if:

212.2.1 They belong to the same two-digit standard industrial classification code under the system described in the 1987 Standard Industrial Classification Manual; or

212.2.2 They are part of a common production process. (Common production process includes industrial processes, manufacturing processes and any connected processes involving a common material.)

212.3 The emissions of cargo carriers associated with the stationary source shall be considered emissions from the stationary source to the extent that emission reductions from these cargo carriers are proposed as offsets.

**213 TITLE V PERMITS:** A permit issued, denied, renewed, amended, or reopened pursuant to Rule 507, FEDERAL OPERATING PERMIT PROGRAM, and the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.), and Part 70 Code of Federal Regulations, "State Operating Permit Programs".

### **300 STANDARDS**

**301 AUTHORITY TO CONSTRUCT:** Any person building, erecting, placing on site, altering or replacing any article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain authorization for such construction from the Air Pollution Control Officer (APCO) as specified in Section 403 of this rule. The emissions unit(s) shall not commence operation until the Air Pollution Control Officer takes final action to approve the Authority to Construct. After the emissions unit(s) commence operation, the Authority to Construct may remain in effect as a Temporary Permit to Operate until a Permit to Operate the equipment is granted or denied or the application is canceled.

301.1 An Authority to Construct, unless extended, shall expire no later than one year following the construction completion date given by the applicant, or no later than two years following the date of permit issuance, whichever occurs first.

301.2 If a written request to extend the Authority to Construct is received by the Air Pollution Control Officer prior to the expiration of the Authority to Construct, an extension may be granted for up to two years if the Air Pollution Control Officer determines that: (1) commencement of construction has occurred, and a good faith effort to complete the project has been made; and (2) the parameters of the project remain the same as in the initial application.

301.3 The Air Pollution Control Officer shall be notified of the anticipated date of initial startup or operation of any permitted emission unit.

301.4 The Air Pollution Control Officer shall be notified of the actual date of initial startup within five (5) days after such date.

**302 PERMIT TO OPERATE:** Any person operating an emission unit, shall first obtain a written permit from the Air Pollution Control Officer.

### **303 STANDARDS FOR GRANTING APPLICATIONS:**

303.1 The Air Pollution Control Officer shall deny an Authority to Construct or Permit to Operate, except as provided in Rule 502, NEW SOURCE REVIEW, if the

applicant does not show that every emission unit is so designed, controlled, equipped, and operated with such air pollution control equipment that it may be shown to operate without emitting or without causing to be emitted air contaminants in violation of these rules and regulations or of such state or federal statutes as may be enforceable by the Air Pollution Control Officer on the date the application is deemed complete.

303.2 No Permit to Operate shall be granted, either by the Air Pollution Control Officer or the Hearing Board, for any emission unit which has been constructed or installed without authorization as required by Section 301 of this rule, until:

303.2.1 The information necessary to enable the Air Pollution Control Officer to make the determination required by Section 303 of this rule and Rule 502, NEW SOURCE REVIEW is presented to the Air Pollution Control Officer; and

303.2.2 Such emission unit is altered, if necessary, and made to conform to the standards set forth in Section 303 of this rule, elsewhere in these rules and regulations, and in the California Health and Safety Code.

303.3 In acting upon a Permit to Operate, if the Air Pollution Control Officer finds that the emission unit has not been constructed in accordance with the Authority to Construct, he or she shall deny the Permit to Operate. The Air Pollution Control Officer shall not accept any further application for a Permit to Operate the emission unit so constructed until he or she finds that the emission unit has been reconstructed in accordance with the Authority to Construct.

303.4 The Air Pollution Control Officer shall require enforceable emission limitations as permit conditions in Authorities to Construct and Permits to Operate to assure the permanence of surplus actual emissions reductions applied for use as internal reductions or emission reduction credits in accordance with Rule 502, NEW SOURCE REVIEW and Rule 504, EMISSION REDUCTION CREDITS.

303.5 The Air Pollution Control Officer shall determine that an applicant for an authority to construct or modify a potential source of air contaminants located within 1,000 feet from the outer boundary of a school has complied with the applicable requirements of California Health and Safety Code Section 42301.6, preparation and distribution of a public notice, prior to approving an application for an Authority to Construct permit.

303.6 Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with all applicable requirements, including applicable provisions of the California State Implementation Plan, District Rules and Regulations, or State or Federal law.

303.7 The Air Pollution Control Officer shall require the applicant, as a condition of the Authority to Construct, to comply with the requirements of California Health and Safety Code Part 6, (Section 44300 et seq.), Air Toxics "Hot Spots" Information and Assessment Act.

**304 PROVISION OF SAMPLING AND TESTING FACILITIES:** In addition to the monitoring and testing required to comply with state or federal laws or regulations, the Air Pollution Control Officer may, upon reasonable written notice or before an Authority to Construct or Permit to Operate is granted, require the applicant or the owner or operator of any emission unit to:

- 304.1 Provide and maintain such facilities as are necessary for sampling and testing purposes in order to secure information that will disclose the nature, extent, quantity or degree of air contaminants discharged into the atmosphere from the equipment in question. In the event of such a requirement, the Air Pollution Control Officer shall notify the applicant in writing of the required size, number and location of sampling holes; the size and location of the sampling platform; the access to the sampling platform; and the utilities for operating the sampling, testing, and air monitoring equipment. Such platform and access shall be constructed in accordance with the applicable General Industry Safety Orders of the State of California.
- 304.2 Provide and maintain sampling and monitoring apparatus to measure emissions of air contaminants.
- 304.2.1 Continuous emission monitoring systems, as a minimum, shall be installed to meet the performance specifications required, by Section 502 of this rule.
- 304.2.2 A violation of emission standards of these rules, as shown by the continuous emission monitoring system, shall be reported by the owner or operator to the Air Pollution Control Officer within 96 hours, or such earlier time as may be required by Rule 404, UPSET CONDITIONS, BREAKDOWN AND SCHEDULED MAINTENANCE.
- 304.2.3 In the event of a breakdown of monitoring equipment, the owner or operator shall notify the Air Pollution Control Officer within 48 hours and shall initiate repairs. The owner or operator shall inform the Air Pollution Control Officer of the intent to shutdown any monitoring equipment at least 24 hours prior to the event.
- 304.2.4 Compliance with the subsections above, does not exempt the owner or operator from applicable provisions of Rule 404, UPSET CONDITIONS, BREAKDOWN AND SCHEDULED MAINTENANCE, the emergency provisions of Rule 507, FEDERAL OPERATING PERMIT PROGRAM, pursuant to 40 CFR 70.6(g), or the separate reporting requirements of other federal regulations to which the stationary source or emissions unit is subject.
- 304.3 If the Air Pollution Control Officer determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of a numerical emission standard infeasible, the Air Pollution Control Officer may instead prescribe a design, operational, or equipment standard. In such cases, the Air Pollution Control Officer may require the installation or modification of process monitoring devices such that the design characteristics or equipment will be properly maintained, or that the operational conditions will be properly performed, so as to continuously achieve the assumed degree of control. To the extent applicable, reporting requirements for process monitors shall be the same as for continuous emission monitoring systems.
- 304.4 A person operating or using a continuous emission monitoring system shall, upon written notice from the Air Pollution Control Officer, provide a summary of the data obtained from such systems. This summary of the data shall be in the form and manner prescribed by the Air Pollution Control Officer. The summary of data shall be available for public inspection at the office of the Air Pollution Control District. Records from the monitoring equipment shall be kept by the owner or

operator for a period of five (5) years, during which time they shall be available to the Air Pollution Control Officer in such form as he or she directs.

- 305 TRANSFER:** An Authority to Construct or Permit to Operate shall only be transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another by means of an application for authorization in accordance with Section 403 of this rule.
- 306 PERMIT RENEWAL:** Every Permit to Operate, except as specified below, shall be renewable annually on the permit's anniversary date, commencing one (1) year after the date of issuance.
- 306.1 Action to suspend or revoke the permit has been initiated and such action has resulted in a final determination to suspend or revoke the permit by the Air Pollution Control Officer or the Hearing Board and all appeals, or time for appeals, has been exhausted.
- 306.2 Fees applicable to the renewal of the permit(s) to operate have not been paid, as specified in Regulation 6, FEES.
- 306.3 The Air Pollution Control Officer shall review every Permit to Operate upon annual renewal, pursuant to Health and Safety Code Section 42301(e), to determine that permit conditions are adequate to ensure compliance with, and the enforceability of, District Rules and Regulations and state and federal laws and regulations applicable to the emission unit for which the permit was issued. Applicable District Rules and Regulations shall include those which were in effect at the time the permit was issued or modified, or which have subsequently been adopted and made retroactively applicable to an existing emission unit by the District Board of Directors. The Air Pollution Control Officer shall revise the conditions, if such conditions are not consistent, in accordance with these rules, regulations, and laws.
- 306.4 The Air Pollution Control Officer may establish an annual permit renewal date for all Permits to Operate held by a stationary source. Thereafter, Permits to Operate shall be renewable that same day and month of each succeeding year, subject to any other requirements of these Rules and Regulations and of state law, regarding validity, voiding or revocation of permits.
- 307 PERFORMANCE TESTING:** Within sixty (60) days after achieving the maximum production rate or the maximum rate of emissions to which the source is limited by enforceable conditions, but not later than one hundred eighty (180) days after initial startup of such source, or as otherwise required by the Air Pollution Control Officer to determine continuous compliance with emission limitations or to confirm emission reductions claimed, the owner or operator of such source shall conduct performance test(s) in accordance with methods and under operating conditions as are approved by the Air Pollution Control Officer and furnish the Air Pollution Control Officer a written report of the results of such performance test(s) within 60 days of completion of such tests..
- 307.1 Such test(s) shall be at the expense of the owner or operator.
- 307.2 Testing shall be conducted with the source(s) of emissions operating at maximum capacity or other rate conforming to the maximum rate of emissions to which the source(s) are limited by enforceable condition(s).

- 307.3 The Air Pollution Control Officer may monitor such test and may also conduct performance tests.
- 307.4 The owner or operator of a source shall provide the Air Pollution Control Officer prior notice of the performance test to afford the Air Pollution Control Officer the opportunity to have an observer present. Notice shall be at least 15 days prior to the test, or as agreed to by the Air Pollution Control Officer.
- 307.5 The Air Pollution Control Officer may waive the requirement for performance tests if the owner or operator of a source has demonstrated by other means to the Air Pollution Control Officer's satisfaction that the source is being operated in compliance with all local, state, and federal regulations which are part of the California State Implementation Plan.

#### 400 ADMINISTRATIVE REQUIREMENTS

- 401 **POSTING:** A person who has been granted a Permit to Operate any emission unit described in Section 302 of this rule shall maintain a legible copy of said permit on the premises of the subject equipment. Other information, analysis, plans or specifications which disclose the nature, extent, quantity, or degree of air contaminants which are or may be discharged from such source shall be readily available for inspection by the Air Pollution Control Officer.
- 402 **ALTERING OF PERMIT:** A person shall not willfully deface, alter, forge, counterfeit, or falsify a Permit to Operate any emission unit described in Section 302 of this rule. A permit amendment or revision requested by the owner or operator, other than an administrative permit, shall require the filing of an application. For an administrative permit amendment, a responsible official may implement the change addressed in the written request immediately upon submittal of the request. The Air Pollution Control Officer shall take final action no later than sixty (60) days after receiving the written request for an administrative permit amendment.
- 402.1 After verifying that the permit revision is an administrative permit amendment, the Air Pollution Control Officer may revise the permit without providing notice to the public or any affected state.
- 402.2 The Air Pollution Control Officer shall provide a copy of the revised permit to the responsible official
- 402.3 While the Air Pollution Control Officer need not make a completeness determination on a written request, the Air Pollution Control Officer shall notify the responsible official if the Air Pollution Control Officer determines that the permit cannot be revised as an administrative permit amendment.
- 403 **APPLICATIONS:** An application for an Authority to Construct, Permit to Operate, change of ownership, or an application for a permit amendment, permit reopening, or revision shall be filed in the manner and form prescribed by the Air Pollution Control Officer, and shall give all the information necessary to enable the Air Pollution Control Officer to make the determinations required by Section 303 of this rule and other applicable District Rules and Regulations and state and federal laws and regulations.
- 403.1 A responsible official representing the owner or operator shall certify the truth, accuracy and completeness of application forms.
- 403.2 When the information submitted with the application is insufficient for the Air Pollution Control Officer to make the required determinations, upon the written

request of the Air Pollution Control Officer a responsible official shall supplement any complete application with additional information within the time frame specified by the Air Pollution Control Officer.

403.3 A responsible official shall promptly provide additional information in writing to the Air Pollution Control Officer upon discovery of submittal of any inaccurate information as part of the application or as a supplement thereto, or of any additional relevant facts previously omitted which are needed for accurate analysis of the application.

403.4 Intentional or negligent submittal of inaccurate information shall be reason for denial of an application.

403.5 An application for an Authority to Construct, Permit to Operate, or permit amendment or revision shall be accompanied by payment of the application filing fee specified in Regulation 6, FEES.

**404 ACTION ON APPLICATIONS:** The Air Pollution Control Officer shall notify the applicant in writing of his or her approval, conditional approval, suspension, or denial of the application for an Authority to Construct or Permit to Operate.

404.1 In the event said notification or notification of application completeness pursuant to Rule 502, NEW SOURCE REVIEW, is not received by applicant within 30 days of the filing of the application, or within 30 days of providing further information as required by Section 403, the applicant may, at his or her option, deem the application to construct or Permit to Operate denied.

404.2 Service of said notification may be made in person or by mail, and such service may be proved by the written acknowledgment of the person(s) served or affidavit of the person making the service.

**405 CONDITIONAL APPROVAL:** The Air Pollution Control Officer may issue an Authority to Construct or a Permit to Operate subject to conditions which will bring the operation of the emission unit within the standards of Section 303 of this rule. The conditions shall be specified in writing. Commencing work under such an Authority to Construct, or operation under such a Permit to Operate, shall be deemed acceptance of all the conditions so specified. The Air Pollution Control Officer shall issue an Authority to Construct or a Permit to Operate with revised conditions upon receipt of a new application, if the applicant demonstrates that the emission unit can operate under the revised conditions within the standards of Section 303 of this rule.

**406 DENIAL OF APPLICATION:** In the event of a denial of an Authority to Construct or Permit to Operate, the Air Pollution Control Officer shall notify the applicant in writing of the reasons therefore. Service of this notification may be made in person or by mail, and such service may be proved by the written acknowledgment of the person(s) served or affidavit of the person making the service. The Air Pollution Control Officer shall not accept a further application unless the applicant has complied with the objections specified by the Air Pollution Control Officer as his or her reasons for denial of the Authority to Construct or the Permit to Operate.

**407 DISCLOSURE:** The Air Pollution Control Officer, at any time, may require from an applicant, or holder of, any permit provided for in these rules and regulations, such information, analyses, plans, or specifications which will disclose the nature, extent, quality, or degree of air contaminants which are, or may be, discharged by the source for which the permit was issued or applied. The Air Pollution Control Officer may require that such disclosures be certified by a professional engineer registered in the State of

California. A responsible official representing the owner or operator shall certify the truth, accuracy and completeness of disclosures. Studies necessary to provide such information shall be at the expense of the owner or operator of the source for which a permit was issued or applied.

- 408 EMISSION STATEMENT:** Upon the request of the Air Pollution Control Officer and as directed by the Air Pollution Control Officer, the owner or operator of any stationary source operation which emits or may emit oxides of nitrogen or reactive organic gas shall provide the Air Pollution Control Officer with a written statement, in accordance with Rule 503, EMISSION STATEMENT, showing actual emissions of oxides of nitrogen and reactive organic gas from that source.
- 409 SUSPENSION:** The Air Pollution Control Officer may suspend a permit if a holder of such permit willfully fails and refuses to furnish information, analyses, plans, and specifications, within a reasonable time, as requested by the Air Pollution Control Officer pursuant to California Health and Safety Code Section 42303, District Rules and Regulations, or any other law, rule, regulation, agreement, or order enforceable by the District. The Air Pollution Control Officer shall serve notice, in writing, of such suspension and the reasons therefore. Service of said notification may be made in person or by mail, and such service may be proved by the written acknowledgment of the persons served or affidavit of the person making the service. The permit shall be reinstated when the Air Pollution Control Officer is furnished with all requested information, analyses, plans, and specifications.
- 410 CANCELLATION OF APPLICATION:** An Authority to Construct or Permit to Operate application may be canceled by the Air Pollution Control Officer:
- 410.1 At the request of the applicant; or
- 410.2 If additional information has been requested of the applicant in accordance with Section 403 without the subsequent submittal of information within a reasonable time.
- 410.3 If applicable permit fees of Rule 601, PERMIT FEES are not paid when due the application may be cancelled and any issued Authority to Construct or Permit to Operate may be voided.
- 411 CANCELLATION OF PERMIT TO OPERATE:** If, prior to the surrender of the operating permit, the Air Pollution Control Officer determines that the source or the emissions unit has been removed or fallen into an inoperable or un-maintained condition, the Air Pollution Control Officer may notify the owner of the intent to cancel the permit, providing the owner or operator with 30 days to respond. If the owner cannot demonstrate to the satisfaction of the Air Pollution Control Officer that the owner intended to operate again, or the owner does not respond within 30 days from the date a second noticing of the District's intent to cancel the permit is mailed by the District to the owner or operator, then the Air Pollution Control Officer may cancel the permit and deem the source or emissions unit shutdown as of the last known date the source or emissions unit discharged emissions.
- 411.1 The owner or operator may request an extension of time, in writing prior to the end of the sixty (60) day period following the initial notice, from the Air Pollution Control Officer.
- 411.2 The Air Pollution Control Officer may grant an extension of time not to exceed ninety (90) days.

411.3 The owner or operator may claim emissions reductions resulting from the shutdown in accordance with the provisions of Rule 504, EMISSION REDUCTION CREDITS, prior to the end of the sixty (60) day period following the initial notice, or prior to the expiration of an extension.

411.4 The Air Pollution Control Officer shall advise, in writing, the owner or operator of the stationary source or emissions unit for which a permit is canceled of the cancellation decision.

411.5 The owner or operator may appeal the decision to cancel the permit pursuant to Section 413 of this rule.

**412 TEMPORARY PERMIT:** The Air Pollution Control Officer may issue a temporary Permit to Operate. The temporary Permit to Operate shall specify a reasonable period of time during which the emission unit may be operated in order for the District to determine whether it will operate in accordance with the conditions specified in the permit.

**413 APPEALS:** Within ten days after notice, by the Air Pollution Control Officer, of cancellation, suspension, denial, or conditional approval of an Authority to Construct, Permit to Operate, or emissions reduction credit application, the applicant or any other aggrieved person who participated in the permit issuance proceedings may petition the Hearing Board, in writing, for an order modifying or reversing that decision. The Hearing Board after public notice and a public hearing held within thirty days after filing the petition, may sustain or reverse the action of the Air Pollution Control Officer; such order may be made subject to specified conditions.

## **500 MONITORING AND RECORDS**

### **501 TESTING PROCEDURES:**

501.1 General Requirements: Except as otherwise specified in the District Rules and Regulations, the State Implementation Plan, and the applicable federal requirements of Rule 507, FEDERAL OPERATING PERMIT PROGRAM, testing methods for determining compliance with emission limits shall be:

501.1.1 The appropriate methods adopted by the California Air Resources Board and cited in Title 17, California Code of Regulations, Division 3, Subchapter 8, Compliance with Non-vehicular Emission Standards; or

501.1.2 The appropriate methods of 40 CFR part 50, Appendix M, Recommended Test Methods for State Implementation Plans; or

501.1.3 Any appropriate method of 40 CFR part 60, Appendix A, Test Methods; or

501.1.4 An alternative method following review and approval of that method by the California Air Resources Board and US Environmental Protection Agency.

501.2 Initial Boiling Point: ASTM D-1078-86, "Test Method for Distillation Range of Volatile Organic Liquids".

501.3 Vapor Pressure: ASTM D-2879-86, "Vapor Pressure-Temperature Relation and Initial Decomposition Temperature of Liquids by Isoteniscope".

**502 MONITORING:** As applicable, each emission source subject to the requirements of Section 301 and 302 shall comply with the following monitoring requirements:

502.1 The requirements of Title 40, Code of Federal Regulations, Part 60, Appendix B and F.

502.2 The applicable federal requirements for monitoring of Title V of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.).

**503 RECORDKEEPING:**

503.1 The following records shall be maintained and provided to the Air Pollution Control Officer upon request.

503.1.1 Emissions monitoring and process data records necessary for the determination and reporting of emissions, in accordance with applicable provisions of the District Rules and Regulations, shall be maintained. Records shall be kept for at least two years and shall be kept 5 years for sources subject to the applicable requirements of Title V and Rule 507, FEDERAL OPERATING PERMIT PROGRAM.

503.1.2 Other records of the nature and amounts of emissions or any other information as may be deemed necessary by the Air Pollution Control Officer to determine whether the stationary source or emissions unit is in compliance with applicable emission limitations, credited emission reductions, exemptions from rule provisions, or other requirements. The information must include emission measurements, continuous emission monitoring system performance testing measurements, performance evaluations, calibration checks and adjustments, maintenance performed on such monitoring systems, and other records and reports required by Title 40, Code of Federal Regulations, Part 60, Appendix B and F.

503.1.3 Operation and maintenance plans shall be submitted to the District for all add-on capture and control equipment for review and approval by the Air Pollution Control Officer. Such plans shall demonstrate, though the use of specific recordkeeping requirements, continuous operation of the add-on control equipment when emission producing operations are occurring. The plan shall also specify records to be kept to document the performance of required periodic maintenance. Records shall be consistent with compliance time frames and employ the most recent US Environmental Protection Agency recordkeeping guidance.

503.2 The Air Pollution Control Officer may require recordkeeping to verify or maintain any exemption.

**RULE 502 NEW SOURCE REVIEW**

Adopted 11-12-74

(Amended 05-24-77, 06-19-79, 09-21-93, 11-03-94, 08-09-01, 12-09-04,  
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**100 GENERAL**

**101 PURPOSE:** The purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct for such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.

**102 APPLICABILITY:** This rule shall apply to all new stationary sources and emissions units and all modifications to existing stationary sources and emissions units that, after construction, emit or may emit any NSR regulated pollutant within the District.

If any source or modification becomes a major source or major modification solely by virtue of the relaxation of any limitation that was established after August 7, 1980, on the capacity of the source or modification to emit a federal nonattainment pollutant or its precursor such as a restriction on hours of operation, then the requirements of this rule shall apply to such a source or modification as though construction had not yet commenced on the source or modification.

This rule shall not apply to prescribed burning of forest, agriculture or range land; open burning in accordance with District Regulation 3, OPEN BURNING; road construction, or any non-point source common to timber harvesting or agricultural practices.

The regulations in effect at the time any application for an Authority to Construct for a new or modified source is deemed complete shall apply to that source except when a new federal requirement not yet incorporated into this Rule applies to the new or modified source.

**103 PUBLIC NOTIFICATION REQUIREMENTS:** The public notice requirements of Sections 406 and 407 shall apply if the project is for a new or modified stationary source or emissions unit for which offsets are required pursuant to Section 303.1, and to all new or modified stationary sources that are projected to emit increased actual lead emissions at a rate of 5 tons per year or greater.

**200 DEFINITIONS:** The following definitions apply for all terms used in this Rule. If a term is not defined below, then the definitions provided in Rule 102, DEFINITIONS, and Rule 504, EMISSIONS REDUCTION CREDITS, apply in that hierarchical order.

**201 ACTUAL EMISSIONS:** Emissions having occurred from a source, based on source test and actual fuel consumption or process data, or monitoring data. If source test or monitoring data is not available, other appropriate, APCO-approved, emission factors may be used. Fugitive emissions associated with the emissions unit shall be included in the actual emissions of the emissions unit.

**202 ACTUAL EMISSIONS REDUCTIONS (AER):** The decrease of actual emissions, compared to Baseline Actual Emissions, from an emissions unit. AER shall be real, federally enforceable, quantifiable, surplus, and permanent.

**203 ACTUAL INTERRUPTIONS OF ELECTRICAL POWER:** When electrical service is interrupted by an unforeseeable event.

**204 ALLOWABLE EMISSIONS:** The emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, hours of operation, or both) and the most stringent of the following:

204.1 Any applicable standards set forth in these regulations and 40 CFR Part 60, 61, or 63;

- 204.2 Any applicable emission limitation in the State Implementation Plan (SIP), including those with a future compliance date; or
- 204.3 The emissions rate specified as a federally enforceable permit condition, including those with a future compliance date.
- 205 AMBIENT AIR QUALITY STANDARDS:** There are both State and federal ambient air quality standards. For the purpose of submittal to the U.S. Environmental Protection Agency for inclusion in the California State Implementation Plan all references in this rule to Ambient Air Quality Standards shall be interpreted as National Ambient Air Quality Standards.
- 206 BASELINE ACTUAL EMISSIONS (BAE):**
- 206.1 "Baseline Actual Emissions" are the actual emissions for the existing emissions unit averaged over the consecutive two (2) year period immediately preceding the date of the application. If the last two years are unrepresentative of normal source operations as determined by the APCO, then any other 2 consecutive year period during the last five years which the APCO determines represents normal source operations may be used.
- 206.2 If, at any time during the 2 year period, actual emissions exceeded allowable emission levels, then actual emissions shall be reduced to reflect emission levels that would have occurred if the unit were in compliance with all applicable limitations and rules.
- 206.3 Where an emissions unit has been in operation for less than 2 years, a shorter averaging period of at least 12 months may be used, provided that the averaging period is representative of the full operational history of the emissions unit. If less than 12 months has passed since the date of issuance of the Permit to Operate then Actual Emissions shall be used as the Baseline Actual Emissions.
- 207 BEGIN ACTUAL CONSTRUCTION:** Initiation of physical on-site construction activities on an emissions unit which is of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipe work, and construction of permanent storage structures. With respect to a change in method of operation that does not involve a physical change, this term refers to those on-site activities, other than preparatory activities, which mark the start of the change in the method of operation.
- 208 BEST AVAILABLE CONTROL TECHNOLOGY (BACT):** The most stringent emission limitation or control technique of the following:
- 208.1 Achieved in practice for such category and class of source; or
- 208.2 Contained in any SIP approved by the EPA for such category and class of source. A specific limitation or control technique shall not apply if the owner of the proposed emissions unit demonstrates to the satisfaction of the APCO that such a limitation or control technique is not presently achievable; or
- 208.3 Contained in an applicable federal New Source Performance Standard; or
- 208.4 Any other emission limitation or control technique, including process and equipment changes of basic or control equipment, found by the APCO to be cost effective and technologically feasible for such class or category of sources.

- 209 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):** The California Environmental Quality Act, Public Resources Code, Section 21000, et seq.
- 210 CLASS I AREA:** Any area listed as Class I in 40 CFR 81.405 or an area otherwise specified as Class I in the legislation that creates a national monument, a national primitive area, a national preserve, a national recreational area, a national wild and scenic river, a national wildlife refuge, a national lakeshore or seashore. The only designated Class I area within 20 miles of Placer County as of October 13, 2011 was Desolation Wilderness Area in El Dorado County.
- 211 COMMENCE:** As applied to construction of a major stationary source or major modification means that the owner or operator has all necessary preconstruction approvals or permits and either has:
- 211.1 Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
- 211.2 Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.
- 212 CARGO CARRIERS:** Cargo carriers are trains dedicated to a specific source.
- 213 CONSTRUCTION:** Means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) which would result in a change in actual emissions.
- 214 CONTIGUOUS PROPERTY:** Two or more parcels of land with a common point or boundary or separated solely by a public roadway or other public right-of-way.
- 215 COST-EFFECTIVE:** A cost per unit of emissions reduction which is lower than or equivalent to the maximum unit costs of the same emissions reduction through the use of Best Available Control Technology, calculated in current year dollars, in accordance with methodology and criteria specified in guidelines developed by the District.
- 216 EMERGENCY ENGINES:** A stationary engine that meets the criteria specified below:
- 216.1 It is installed for the primary purpose of providing electrical power or mechanical work for emergency use and is not the source of primary power at the facility; and
- 216.2 It is operated to provide electrical power or mechanical work during any emergency use; and
- 216.3 It is operated no more than 100 hours per year for maintenance and testing, emissions testing or initial start-up testing. Diesel engines may be further limited by the California Air Resources Board's Airborne Toxic Control Measure for Stationary Compression Engines in Section 93115.6(a).
- 217 EMERGENCY USE:** The providing of electrical power or mechanical work during any of the following events.
- 217.1 The failure or loss of all or part of normal electrical power service or normal natural gas supply to the facility, or the failure of a facility's internal power distribution system:

- 217.1.1 Which is caused by any reason other than the adherence to a contractual obligation the owner or operator has with a third party or any other party; and
- 217.1.2 Which is demonstrated by the owner or operator, to the APCO's satisfaction, to have been beyond the reasonable control of the owner or operator.
- 217.2 The pumping of water or sewage to prevent or mitigate a flood or sewage overflow.
- 217.3 The pumping of water for fire suppression or protection.
- 217.4 The powering of ALSF-1 or ALSF-2 airport runway lights under category II or III weather conditions.
- 217.5 The pumping of water to maintain pressure in the water distribution system for the following reasons:
  - 217.5.1 A pipe break that substantially reduces water pressure; or
  - 217.5.2 High demand on the water supply system due to high use of water for fire suppression; or
  - 217.5.3 The breakdown of electric-powered pumping equipment at sewage treatment facilities or water delivery facilities.
- 217.6 The emergency operation of ski lifts during an actual interruption of normal electrical power service to the facility.
- 218 EMISSION DECREASE:** Any modification that would result in an emission decrease of actual emissions.
- 219 EMISSION REDUCTION CREDITS (ERC):** Reductions of actual emissions from emission units that are certified by an air district in accordance with that district's rules and are issued by the air district in the form of ERC certificates.
- 220 EMISSIONS LIMITATION:** One or more federally enforceable permit conditions specific to an emissions unit that restricts its maximum emissions, at or below the emissions associated with the maximum design capacity; and that is contained in the latest Authority to Construct or enforceable by the latest Permit to Operate for the emission unit.  
  
Emissions limitations should be stated in a manner consistent with testing procedures. They may be expressed as an enforceable design, operational, or equipment standard.
- 221 EMISSIONS UNIT:** An identifiable operation or piece of process equipment such as an article, machine, or other contrivance which controls, emits, may emit, or results in the emissions of any air pollutant directly or as fugitive emissions.
- 222 FEDERALLY ENFORCEABLE:** All limitations and conditions which are enforceable by the EPA administrator, including those requirements developed pursuant to 40 CFR parts 60, 61 and 63, requirements within the California State Implementation Plan (SIP), any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR part 51, subpart I, including operating permits issued under an EPA-approved program that is incorporated into the SIP and expressly requires adherence to any permit issued under such program.

- 223 FUGITIVE EMISSIONS:** Those emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- 224 FUNCTIONALLY EQUIVALENT EMISSION UNIT:** An emission unit that serves the identical function as the unit being replaced. The maximum rating and the potential to emit any pollutant shall not be greater from the functionally equivalent emission unit than the replaced unit. The emission increase from any such replacement shall not result in a major modification.
- 225 HALOGENATED HYDROCARBONS:** For the purposes of this rule, halogenated hydrocarbons are the following:
- 225.1 1,1,1-trichloroethane
  - 225.2 methylene chloride
  - 225.3 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)
  - 225.4 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
  - 225.5 trichlorofluoromethane (CFC-11)
  - 225.6 dichlorodifluoromethane (CFC-12)
  - 225.7 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113)
  - 225.8 1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane (CFC-114)
  - 225.9 chloropentafluoroethane (CFC-115)
  - 225.10 pentafluoroethane (HFC-125)
  - 225.11 1,1,2,2-tetrafluoroethane (HFC-134)
  - 225.12 tetrafluoroethane (HFC-134a)
  - 225.13 1,1-dichloro-1-fluoroethane (HCFC-141b)
  - 225.14 1-chloro-1,1-difluoroethane (HCFC-142b)
  - 225.15 1,1,1-trifluoroethane (HFC-143a)
  - 225.16 chlorodifluoromethane (HCFC-22)
  - 225.17 trifluoromethane (HFC-23)
  - 225.18 1,1-difluoroethane (HFC-152a)
  - 225.19 The following four classes of perfluorocarbon compounds:
    - a. Cyclic, branched, or linear, completely fluorinated alkanes.
    - b. Cyclic, branched, or linear, completely fluorinated ethers, with no unsaturations.
    - c. Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations.
    - d. Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
    - e. Perfluorocarbon compounds will be assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present in the product or process and provides a validated test method which can be used to quantify the specific compounds.
- 226 HAZARDOUS AIR POLLUTANT (HAP):** Any air pollutant listed pursuant to Section 112(b) of the Federal Clean Air Act as amended in 1990 (42 U.S.C. Section 7401 et seq.).
- 227 HISTORIC ACTUAL EMISSIONS (HAE):** Historic Actual Emissions shall be calculated for each pollutant.
- 227.1 For a new emissions unit Historic Actual Emissions are equal to zero.
  - 227.2 For an existing emissions unit, Historic Actual Emissions equals either, in hierarchical order;

227.2.1 The federally enforceable potential to emit (PTE) limit contained in the most recent Authority to Construct or Permit to Operate, if actual emissions are at least 80% of the permitted PTE limit, or

227.2.2 The federally enforceable PTE limit contained in the most recent Authority to Construct or Permit to Operate, if the emission unit was fully offset for any emission increases incurred since September 21, 1993, within the 5 year period prior to the date of application for the current project, or

227.2.3 The Baseline Actual Emissions.

- 228 IDENTICAL EMISSION UNIT:** A replacement emissions unit which is the same as the original unit in all respects except for serial number.
- 229 LAKE TAHOE AIR BASIN:** Established pursuant to Section 39606 of the Health & Safety Code of the State of California and as described in Title 17, California Code of Regulations, Section 60113 (b), the basin includes that portion of Placer County within the drainage area naturally tributary to Lake Tahoe including said Lake, plus that area in the vicinity of the head of the Truckee River described as follows: commencing at the point common to the aforementioned drainage area crest line and the line common to Townships 15 North and 16 North, Mount Diablo Base and Meridian (M.D.B. & M.), and following that line in a westerly direction to the northwest corner of Section 3, Township 15 North, Range 16 East, (M.D.B. & M.), thence south along the west line of Sections 3 and 10, Township 15 North, Range 16 East, M.D.B. & M., to the intersection with the drainage crest line, thence following the said drainage area boundary in a southwesterly, then northeasterly direction to and along the Lake Tahoe Dam, thence following the said drainage area crest line in a northeasterly, then northwesterly direction to the point of beginning. This Air Basin is delineated on an official map on file at the California Air Resources Board Headquarters Office.
- 230 MAJOR STATIONARY SOURCE – SACRAMENTO AIR BASIN:** A stationary source which emits or has the potential to emit: 25 tons per year (tpy) or more of nitrogen oxides or reactive organic compounds, or 100 tpy or more of sulfur oxides, or PM2.5. In addition, any physical change occurring at a stationary source not otherwise qualifying as a major stationary source, which would constitute a major stationary source by itself, makes the source a major stationary source.
- 231 MAJOR STATIONARY SOURCE – MOUNTAIN COUNTIES AIR BASIN:** A stationary source which emits or has the potential to emit 25 tons per year (tpy) or more of nitrogen oxides or reactive organic compounds. In addition, any physical change occurring at a stationary source not otherwise qualifying as a major stationary source, which would constitute a major stationary source by itself, makes the source a major stationary source.
- 232 MAJOR MODIFICATION:** A modification to a major stationary source in the Sacramento or Mountain Counties Air Basins which results in a significant emissions increase of the pollutant for which the source is classified as a major stationary source. For nitrogen oxides and reactive organic compounds, the increase shall be aggregated with all other increases and decreases in potential to emit over the period of the four consecutive years before the application for modification, plus the calendar year of the most recent application.
- 233 MODIFICATION:** Any physical change, change in method of operation (including change in fuel characteristics), addition to, or any change in hours of operation, or change in production rate of, which:

- 233.1 For an emissions unit: would necessitate a change in permit conditions, permit equipment description, or emissions limitation.
- 233.2 For a stationary source: is a modification of any emissions unit, or addition of any new emissions unit.
- 233.3 Unless previously limited by a permit condition and that permit condition must be changed, the following shall not be considered a modification:
- 233.3.1 A change in ownership.
- 233.3.2 Routine maintenance and repair, or an identical replacement.
- 233.3.3 The addition of a continuous emission monitoring system.
- 233.3.4 The replacement of air pollution control equipment with new control equipment if the actual emissions of the new equipment are less than or equal to those from the original piece of equipment and the replacement is not a major modification under the United States Environmental Protection Agency (EPA) regulations promulgated pursuant to Title I of the Federal Clean Air Act, including 40 CFR Part 51.
- 233.3.5 Use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation), or by reason of a natural gas curtailment plan pursuant to the Federal Power Act.
- 233.3.6 Use of an alternative fuel by reason of an order or rule under Section 125 of the Act.
- 233.4 A reconstructed stationary source or emissions unit shall be treated as a new stationary source or emissions unit, not as a modification.
- 234 MOUNTAIN COUNTIES AIR BASIN:** Established pursuant to Section 39606 of the Health & Safety Code of the State of California and as described in Title 17, California Code of Regulations, Section 60111 (I), the Mountain Counties Air Basin includes all of Placer County except that portion included in the Lake Tahoe Air Basin, defined by 17 CCR 60113(b), and that portion included in the Sacramento Valley Air Basin, defined by 17 CCR 60106(k).
- 235 NECESSARY PRECONSTRUCTION APPROVALS OR PERMITS:** Federal air quality control laws and regulations and those air quality control laws and regulations which are part of the SIP.
- 236 NONATTAINMENT POLLUTANT:** Any pollutant as well as any precursors of such pollutants which have been designated "nonattainment" by the U.S. Environmental Protection Agency as codified in 40 CFR 81.305, or which has been designated nonattainment by the California Air Resources Board pursuant to Section 39607 of the Health and Safety Code for specific air basins in Placer County.
- 237 NSR REGULATED POLLUTANT:** A pollutant for which an Ambient Air Quality Standard has been established by the EPA or by the California Air Resources Board (ARB), and the precursors to such pollutants, including, but not limited to, reactive organic compounds (ROC), nitrogen oxides (NOx), sulfur oxides (SOx), PM10, PM2.5, carbon monoxide (CO) and lead.

- 238 PM2.5:** Particulate matter with an aerodynamic diameter smaller than or equal to a nominal 2.5 microns. Gaseous emissions which condense to form PM2.5 shall also be counted as PM2.5.
- 239 PM10:** Particulate matter with an aerodynamic diameter smaller than or equal to a nominal 10 microns. Gaseous emissions which condense to form PM10 shall also be counted as PM10.
- 240 PORTABLE EQUIPMENT:** Equipment that is periodically relocated and is not operated more than a total of 180 days at any one location in the District within any continuous twelve (12) month period.
- 241 POTENTIAL TO EMIT (PTE):** The maximum physical and operational design capacity to emit an air pollutant. Any limitation on the physical or operational design capacity, including emission control devices and restrictions on hours of operation, or on the type, or amount of material combusted, stored, or processed, may be considered as part of the design only if the limitation, or the effect it would have on emissions, is incorporated into the Authority to Construct as a federally enforceable permit condition. Fugitive emissions associated with the emissions unit or stationary source shall be included in the potential to emit of the emissions unit or stationary source.
- 242 PRECURSOR:** A pollutant that, when emitted into the atmosphere, may undergo either a chemical or physical change which then produces another 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. The following precursor-secondary air contaminant relationships shall be used for the purposes of this rule:

Precursor	Secondary Air Contaminant
Reactive Organic Compound	a. Photochemical oxidants (Ozone) b. Organic fraction of PM10
Nitrogen Oxides	a. Nitrogen dioxide b. Nitrate fraction of PM10 c. Nitrate fraction of PM2.5 d. Photochemical oxidants (Ozone)
Sulfur Oxides	a. Sulfur dioxide b. Sulfates c. Sulfate fraction of PM10 d. Sulfate fraction of PM2.5

- 243 PREVENTION OF SIGNIFICANT DETERIORATION (PSD):** A federal permitting program for new and modified major stationary sources of air pollution for pollutants that do not exceed National Ambient Air Quality Standards.
- 244 PRIORITY RESERVE BANK:** A depository for preserving emission reduction credits pursuant to Rule 505, PRIORITY RESERVE.
- 245 PROPOSED EMISSIONS:** Emissions based on the potential to emit for the new or modified emissions unit which will be incorporated into the permit as federally enforceable permit conditions.
- 246 QUARTERLY:** Calendar quarters beginning January 1, April 1, July 1, and October 1.
- 247 QUARTERLY EMISSION LIMITATION:** One or a combination of permit conditions specific to an emissions unit that restricts its maximum emissions, in pounds per quarter, at or below the emissions associated with the maximum design capacity. A quarterly emissions limitation must be:

- 247.1 Contained in the latest Authority to Construct or enforceable by the latest Permit to Operate for the emissions unit, and
- 247.2 Enforceable on a quarterly basis.
- 248 REACTIVE ORGANIC COMPOUND:** For the purposes of this rule, reactive organic compound (ROC) has the same definition as volatile organic compound (VOC) in Rule 102, DEFINITIONS.
- 249 RECONSTRUCTED SOURCE:** Any stationary source or emissions unit undergoing physical modification where the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable entirely new stationary source or emissions unit. Fixed capital cost means that capital needed to provide all the depreciable components. A reconstructed source shall be treated as a new stationary source or emissions unit.
- 250 REDUCED SULFUR COMPOUNDS:** The sulfur compounds hydrogen sulfide, carbon disulfide and carbonyl sulfide.
- 251 REPLACEMENT EMISSION UNIT:** An emissions unit for which all the criteria listed below are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced unless:
- 251.1 The emissions unit is a reconstructed unit within the meaning of 40 CFR 60.15(b)(1), or the emissions unit completely takes the place of an existing emissions unit, or
- 251.2 The emissions unit is an identical emission unit or a functionally equivalent emission unit, or
- 251.3 The replacement does not alter the basic design parameters of the process unit, and
- 251.4 The replaced emissions unit is permanently removed from the stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is federally enforceable. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.
- 252 SACRAMENTO VALLEY AIR BASIN:** Established pursuant to Section 39606 of the Health & Safety Code of the State of California and as described in Title 17, California Code of Regulations, Section 60106(k), the basin includes that portion of Placer County which lies west of Range 9 east, Mount Diablo Base and Meridian (M.D.B. & M.).
- 253 SIGNIFICANT:** In reference to an emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:
- 253.1 Carbon monoxide: 100 tpy;
- 253.2 Nitrogen oxides: 25 tpy;
- 253.3 Sulfur dioxide: 40 tpy;
- 253.4 Ozone: 25 tpy of VOCs or 25 tpy of nitrogen oxides;
- 253.5 PM10: 15 tpy

- 253.6 PM2.5: 10 tpy of direct PM2.5 emissions or 40 tpy of sulfur dioxide emissions or 40 tpy of nitrogen oxide emissions
- 253.7 Lead: 0.6 tpy.
- 254 SIGNIFICANT EMISSIONS INCREASE:** For a regulated NSR pollutant, an increase in emissions that is significant for that pollutant.
- 255 STATIONARY SOURCE (SOURCE OR FACILITY):** Any building, structure, facility, or emissions unit that emits or may emit any NSR regulated pollutant directly or as fugitive emissions.
- 255.1 Building, structure, facility, or emissions unit includes all pollutant emitting activities which:
- 255.1.1 belong to the same industrial grouping, and;
- 255.1.2 are located on one property or on two or more contiguous properties, and;
- 255.1.3 are under the same or common ownership, operation, or control or which are owned or operated by entities which are under common control.
- 255.2 Pollutant emitting activities shall be considered as part of the same industrial grouping if:
- 255.2.1 they belong to the same two digit standard industrial classification code under the system described in the 1987 Standard Industrial Classification Manual, or;
- 255.2.2 they are part of a common production process. (Common production process includes industrial processes, manufacturing processes and any connected processes involving a common material.)
- 255.3 The emissions of cargo carriers associated with the stationary source shall be considered emissions from the stationary source to the extent that emission reductions from these cargo carriers are proposed as offsets.
- 256 STATIONARY SOURCE PTE:** The sum of the PTE for each emission unit which has been issued a Permit to Operate, Authority to Construct or for which an application has been submitted. Any fugitive emissions from such emission units shall be included in this calculation.
- 257 SURPLUS:** The amount of emission reductions that are, at the time of generation of an Emissions Reduction Credit (ERC), not otherwise required by federal, state, or local law, not required by any legal settlement or consent decree, and not relied upon to meet any requirement related to the California State Implementation Plan (SIP). However, emission reductions required by a state statute that provides that the subject emission reductions shall be considered surplus may be considered surplus for purposes of this Rule if those reductions meet all other applicable requirements.

Examples of federal, state, and local laws, and of SIP-related requirements, include, but are not limited to, the following:

- 257.1 The federally-approved California SIP;

- 257.2 Other adopted state air quality laws and regulations not in the SIP, including but not limited to, any requirement, regulation, or measure that: (1) the District or the state has included on a legally-required and publicly-available list of measures that are scheduled for adoption by the District or the State in the future; or (2) is the subject of a public notice distributed by the District or the State regarding an intent to adopt such revision;
- 257.3 Any other source- or source-category specific regulatory or permitting requirement, including, but not limited to, Reasonable Available Control Technology (RACT), New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Best Available Control Measures (BACM), Best Available Control Technology (BACT), and the Lowest Achievable Emission Rate (LAER); and
- 257.4 Any regulation or supporting documentation that is required by the federal Clean Air Act but is not contained or referenced in 40 C.F.R. Part 52, including but not limited to: assumptions used in attainment and maintenance demonstrations (including Reasonable Further Progress demonstrations and milestone demonstrations), including any proposed control measure identified as potentially contributing to an enforceable near-term emissions reduction commitment; assumptions used in conformity demonstrations; and assumptions used in emissions inventories.
- 258 **TEMPORARY SOURCE:** Temporary emission sources such as pilot plants, and portable facilities which will be terminated or located outside the District after less than a cumulative total of 90 days of operation in any 12 continuous months.
- 259 **TOTAL REDUCED SULFUR COMPOUNDS:** The sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide and dimethyl disulfide.

### 300 STANDARDS

- 301 **EMISSION AND OFFSET CALCULATIONS:** The following provisions shall be used to calculate emission increases and decreases from all new and modified emissions units located at a stationary source.
- 301.1 **BACT – Emissions Increase:** The emissions increase for each emissions unit related to the project for the purposes of determining BACT applicability shall be calculated as the proposed emissions minus the Baseline Actual Emissions. Calculations shall be performed separately for each emissions unit for each calendar quarter.
- 301.2 **Offsets - Emissions Increase or Decrease:** The emissions increase or decrease for each emissions unit related to the project for the purposes of determining Offset applicability shall be calculated as the proposed emissions, minus the Historic Actual Emissions. Emission increases or decreases shall be calculated for each emission unit and the project as a whole.
- 301.3 **Project Emissions:** If a project consists of more than one emission unit, the total emissions from all emissions units shall be summed for each pollutant to determine the emissions increase for the project. The project includes the entire scope of the preconstruction application for a new or modified stationary source.
- 301.4 **Calculation Periods:** The emissions increase or decrease for a project shall be calculated on a daily, quarterly and annual basis for each pollutant.

- 301.5 **Potential To Emit - Stationary Sources:** The potential to emit of a new or modified stationary source shall be calculated as the sum of the potential to emit, including fugitive emissions, for all emissions units, based on emission limitations established by current Permits to Operate, Authorities to Construct where permits to operate have not been issued, and the pending application.
- 301.6 **Quantity of Offsets Required For New Major Sources or Major Modifications:** If offsets are required pursuant to Section 303.2, the quantity of offsets to be provided shall be determined by calculating the emission increase for the project and applying the appropriate offset ratio based on pollutant and location as specified in Section 303.3. The calculations shall be performed separately for each pollutant and each emissions unit for each calendar quarter.
- 301.7 **Quantity of General (State) Offsets Required:** If offsets are required pursuant to Section 303.1, the quantity of offsets to be provided shall be determined as follows:
- 301.7.1 If offsets have already been provided by a stationary source for a particular pollutant, then multiply the emission increase calculated for the project by the appropriate offset ratio based on pollutant and location as specified in Section 303.3, or
- 301.7.2 If no offsets have been provided previously by a stationary source for a particular pollutant, then subtract the offset threshold specified in Section 303.1 for that pollutant from the stationary source PTE and multiply the value by the appropriate offset ratio based on pollutant and location as specified in Section 303.3.
- 301.8 **Quantity of Offsets Required For A Modification That Makes An Existing Source A Major Stationary Source:** When the proposed modification will make an existing minor source a new major source, offsets required shall be calculated as the sum of proposed PTE for all emissions units installed after September 21, 1993 based on current permits to operate and Authority to Construct where permits to operate have not been issued, plus the pending application, minus offsets supplied since September 21, 1993. Calculations shall be performed separately for each pollutant and each emissions unit for each calendar quarter. The offset ratios of Section 303.3 shall be applied to determine the ERCs required.
- 302 REQUIREMENT TO APPLY BEST AVAILABLE CONTROL TECHNOLOGY:** An applicant shall apply Best Available Control Technology (BACT) to a new emissions unit or modification of an existing emissions unit, except cargo carriers, if the change would result in an increase in quarterly emissions of a NSR regulated pollutant from the new or modified emissions unit and if the PTE of the new or modified emissions unit equals or exceeds the levels specified below.

<u>Pollutant</u>	<u>lb/day</u>
Reactive organic compounds	10
Nitrogen oxides	10
Sulfur oxides	80
PM10	80
PM2.5	80
Carbon monoxide	550
Lead	3.3
Vinyl chloride	5.5
Sulfuric acid mist	38
Hydrogen sulfide	55

Total reduced sulfur compounds	55
Reduced sulfur compounds	55

### 303 OFFSET REQUIREMENTS

- 303.1 General Requirement to Provide Offsets: An applicant whose facility is located in the Sacramento Valley Air Basin or the Mountain Counties Air Basin shall provide offsets for a NSR regulated pollutant if the potential to emit of a new or modified source exceeds either of the threshold quantities listed below:

<u>Pollutant</u>	<u>Pounds per quarter</u>	<u>Tons per year</u>
Reactive organic compounds	5,000	10
Nitrogen oxides	5,000	10
Sulfur oxides	13,750	27.5
PM10	7,500	15
PM2.5	7,500	15
Carbon monoxide	49,500	99

- 303.2 Major Source or Major Modification Requirement to Provide Offsets: An applicant whose facility is located in the Sacramento Valley Air Basin or the Mountain Counties Air Basin, and whose project emissions will result in a new major source or major modification, shall provide offsets for each NSR regulated pollutant that constitutes a major source or major modification.

- 303.3 Location of Offsets and Offset Ratios: The applicable offset ratio shall be determined based on the location of the new or modified stationary source required to provide offsets and the distance to the location of the emission offsets, as indicated in the following table.

<u>Location of Offset</u>	<u>Offset Ratio</u>	<u>Offset Ratio</u>
	<u>NOx and ROC</u>	<u>Other Pollutants</u>
Same Source	1.0 to 1.0	1.0 to 1.0
Within 15-Mile radius and within the same air basin	1.3 to 1.0	1.2 to 1.0
Greater than 15-Miles but within 50-Mile radius within the same air basin	1.5 to 1.0	1.5 to 1.0
Greater than 50-Mile radius and within the same air basin	Greater than 1.5 to 1.0	Greater than 1.5 to 1.0

- 303.3.1 The APCO may impose, based on the air quality analysis, a higher offset ratio such that the new or modified stationary source will not prevent or interfere with the attainment or maintenance of any ambient air quality standard.

- 303.3.2 Applicants providing offsets obtained pursuant to Rule 505, PRIORITY RESERVE, shall be subject to an offset ratio of 1.2 to 1.0 for all pollutants, except NOx and VOC, at all distances. The offset ratio for NOx and VOC offsets obtained pursuant to Rule 505, PRIORITY RESERVE, shall be subject to an offset ratio of 1.3 to 1.0 at all distances.

#### 303.4 General Offset Provisions

- 303.4.1 All offsets shall be real, surplus, federally enforceable, quantifiable and permanent.

- 303.4.2 All offsets provided for major sources and major modifications shall be surplus at the time ERCs are surrendered to the District.
- 303.4.3 All offsets shall be surrendered to the District prior to the initial startup of the new or modified source, and the offsets shall be maintained throughout the operation of the new or modified source which is the beneficiary of the offsets.
- 303.4.4 Offsets can only come from air basins with the same or worse air quality designations than that of the stationary source requiring the offsets.
- 303.4.5 In no case shall halogenated hydrocarbons, exempt compounds or any other compound excluded from the definition of reactive organic compounds, be used as offsets for reactive organic compounds.
- 303.4.6 For sources which have provided full offsets of total suspended particulate (TSP), the PM10 emissions from an existing stationary source shall be recalculated from the TSP emission increases and decreases which have occurred since December 31, 1976, using PM10 emission factors. When PM10 emission factors do not exist, it shall be assumed that 50% of the TSP is PM10.
- 303.5 Timing of Quarterly Emission Offsets: Sufficient offsets shall be provided, from the same calendar quarter as the proposed emission increase, with the following exceptions:
- 303.5.1 Emission reductions of reactive organic compounds or nitrogen oxides during the quarters starting April 1 or July 1 may be used to offset emission increases of the same pollutants during any calendar quarter.
- 303.5.2 Emission reductions of carbon monoxide during the quarters starting January 1 or October 1 may be used to offset emission increases of carbon monoxide during any calendar quarter.
- 303.5.3 Emission reductions of PM10 or PM2.5 during the quarters starting January 1 or October 1 may be used to offset emission increases of PM10 or PM2.5 during any calendar quarter.
- 303.5.4 Emission reductions of sulfur oxides during any quarter may be used to offset emission increases of sulfur oxides during any calendar quarter.
- 303.6 Interpollutant Offsets
- 303.6.1 The APCO may approve interpollutant offsets for precursor pollutants on a case by case basis, provided that the applicant demonstrates, through the use of an air quality model, that the emission increases from the new or modified source will not cause or contribute to a violation of an ambient air quality standard.
- 303.6.2 Interpollutant offsets between PM10 and PM10 precursors are allowed only if PM10 precursors contribute significantly to the PM10 levels that exceed the PM10 ambient standards.
- 303.6.3 PM10 emissions shall not be allowed to offset nitrogen oxides or reactive organic compound emissions in ozone nonattainment areas,

nor be allowed to offset sulfur oxide emissions in sulfate nonattainment areas.

303.6.4 Interpollutant emission offsets between PM2.5 precursors are not allowed unless modeling demonstrates that PM2.5 interpollutant offset ratios are appropriate in an approved PM2.5 attainment plan.

303.6.5 EPA and ARB must concur with all proposed interpollutant offsets ratios prior to use.

### 303.7 Intra-District Offsets

303.7.1 ERCs generated in another district may be used to offset emission increases in Placer County.

303.7.2 If the ERC generating source and the source with the proposed emissions increase are not in the same air basin, both of the following requirements must be met:

- a. The ERC generating source must be located in an upwind district that is classified, pursuant to Health and Safety Code Section 40910 et seq., as being in the same or a worse nonattainment status than the downwind district where the stationary source with the proposed emission increases will be located.
- b. The stationary source at which the emission increases are to be offset must be located in a downwind district that is overwhelmingly impacted, as determined pursuant to Health and Safety Code Section 39610, by emissions transported from the upwind district where the ERC generating source is located.

303.7.3 Any offset credited to a stationary source in one district using offsets obtained from reductions at a stationary source in another district shall be approved by a resolution adopted by the governing boards of both the upwind and downwind districts, after taking into consideration the impact of the offset on air quality, public health, and the regional economy. The District's governing board may delegate to the APCO the Board's authority to approve the offsets credited.

303.7.4 For ERCs generated in another district, the District may adjust the value of such credits to reflect any District requirements that would have applied if the credits had been generated within the District.

303.8 Emission Reductions, Shutdowns, and Curtailments: Actual emission reductions from an internal shutdown or curtailment of a permitted emission unit may be credited for the purposes of providing internal offsets provided:

303.8.1 The crediting of emission reductions from source shutdowns and curtailments comply with the current U.S. Environmental Protection Agency emissions trading policy and applicable federal regulations; and

303.8.2 Emissions reductions are ensured by federally enforceable emission limitations contained in the Permit to Operate, or the permanent surrender or cancellation of the Permit to Operate; and

303.8.3 If the shutdown emission unit is being replaced with a new or modified emission unit, the APCO may allow a maximum of 90 days as a

shakedown period for simultaneous operation of the existing and the new or modified emission unit.

### 303.9 Exemptions From Offset Requirements

303.9.1 Offsets shall not be required for temporary sources or portable equipment, if the emissions from such units do not constitute a major source or major modification to a major source.

303.9.2 Offsets shall not be required for an emergency engine which is used exclusively for testing, maintenance and emergency use, if the emissions from the emergency engine, excluding emergency use, do not exceed the offset limit by itself.

303.9.3 Offsets shall not be required for increases in carbon monoxide emissions if the applicant, using an Air Quality Model approved by the APCO, demonstrates that the increase in ambient concentration does not exceed 500 micrograms per cubic meter, 8 hour average, at or beyond the property line of the stationary source.

303.9.4 The requirement to provide offsets shall not apply to the following:

- a. Relocation of emissions units solely within only one air basin within the District, and the relocation does not result in any increase in potential to emit.
- b. Replacement emissions units, provided the replacement does not constitute a major source or major modification.
- c. Modifications necessary to comply with any regulations contained in Regulation 2 – PROHIBITIONS, or in the SIP, unless the modification will result in a major modification. This provision does not apply to changes in production rate, hours of operation, or any other change or modification not required for compliance with Regulation 2 or the SIP.
- d. If requested by the APCO, the applicant shall demonstrate through the use of an air quality model that the emission increases from the new or modified source will not cause or contribute to a violation of an ambient air quality standard.

**304 MAJOR SOURCE ADMINISTRATIVE REQUIREMENTS:** The following administrative requirements shall apply to any new major source or major modification regulated by the rule. Power plants over 50 megawatts shall be subject to the additional requirements of Section 500.

304.1 Alternative Siting: The applicant shall prepare an analysis functionally equivalent to the requirements of Division 13 of the Public Resources Code (California Environmental Quality Act-CEQA). The District will not issue an Authority to Construct unless the APCO has concluded, based on the information included in the Alternative Siting Analysis that the benefits of the proposed source significantly outweigh the environmental and social cost imposed as a result of its location, construction, or modification.

304.2 Certification of Compliance: The owner or operator of the proposed new or modified source has certified that all existing major stationary sources owned or operated by such person (or by any entity controlling, controlled by, or under

common control with such person) in California which are subject to emission limitations are in compliance, or on an expeditious schedule for compliance, with all applicable emission limitations and standards.

- 304.3 **Potential Visibility Impacts:** The APCO shall consult with the Federal Land Manager on a proposed major stationary source or major modification that may impact visibility in any Class 1 Area, in accordance with 40 CFR 51.307 if the net emissions increase from the new or modified source exceeds 10 tons/year of PM<sub>2.5</sub>, 15 tons/year of PM<sub>10</sub>, or 40 tons/year of NO<sub>x</sub>; and the location of the source, relative to the closest boundary of a specified federal Class I area is within 20 miles.

## 305 GENERAL PROVISIONS

- 305.1 **Air Quality Models:** All estimates of ambient concentrations required pursuant to this rule shall be based on applicable air quality models, databases, and other requirements specified in 40 CFR Part 51, Appendix W ("Guideline on Air Quality Models"). Where an air quality model specified in 40 CFR Part 51, Appendix W ("Guideline on Air Quality Models") is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis. Written approval from the United States Environmental Protection Agency (EPA) must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment.

- 305.2 **Ambient Air Quality Standards:** In no case shall emissions from the new or modified stationary source prevent or interfere with the attainment or maintenance of any applicable ambient air quality standard. The Air Pollution Control Officer (APCO) may require the use of an air quality model to estimate the effects of a new or modified stationary source. The analysis shall estimate the effects of the new or modified stationary source, and verify that the new or modified stationary source will not prevent or interfere with the attainment or maintenance of any ambient air quality standard. In making this determination the APCO shall take into account the mitigation of emissions through offsets pursuant to this rule and the impacts of transported pollutants on downwind pollutant concentrations. The APCO may impose, based on an air quality analysis, offset ratios greater than the requirements of Section 303.2.

## 400 APPLICATION PROCESSING

- 401 **REQUIREMENT TO SUBMIT APPLICATION:** Any person building, erecting, altering or replacing any article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain authorization for such construction from the APCO as specified in this rule. Exemptions from this requirement are listed in Rule 501, GENERAL PERMIT REQUIREMENTS. The application shall be submitted on forms supplied by the District.
- 402 **COMPLETE APPLICATION REQUIREMENT:** The APCO shall determine whether an application is complete no later than 30 days after receipt of the application, or after such longer time period that the applicant and the APCO have agreed to in writing.

If the APCO determines that the application is not complete, the applicant shall be notified in writing of the decision specifying the information required. Upon receipt of any re-submittal of the application, a new 30-day period to determine completeness shall begin. Completeness of an application or a re-submitted application shall be evaluated on the basis of the information requirements set forth in District regulations as they exist on

the date on which the application or re-submitted application was received, or when the CEQA-related information which satisfies the requirements of the District's CEQA Guidelines has been received, whichever is later.

The APCO may, during the processing of the application, request an applicant to clarify, amplify, correct, or otherwise supplement the information submitted in the application.

- 403 PRELIMINARY DECISION:** Following acceptance of an application as complete, the APCO shall perform the evaluations required to determine compliance with all applicable District rules and regulations and make a preliminary written decision as to whether an Authority to Construct should be approved, conditionally approved, or denied.

The decision shall be based on the Section 300 standards in force on the date the application is deemed complete, except when a new federal requirement not yet incorporated into this Rule applies to the new or modified source.

When the District is the CEQA Lead Agency for a project, the APCO shall not issue a preliminary decision until the draft Environmental Impact Report or Negative Declaration is available for public review. The decision shall be supported by a succinct written analysis. For projects requiring offsets, the APCO shall transmit its preliminary written decision and analysis to the California Air Resources Board and the U.S. Environmental Protection Agency for a 45 day review period.

**404 TIMING FOR FINAL ACTION**

- 404.1 The APCO shall not take final action for any project for which an Environmental Impact Report (EIR) or a Negative Declaration is being prepared until a final EIR for that project has been certified or a Negative Declaration for that project has been approved, and the APCO has considered the information in that final EIR or Negative Declaration.

The APCO shall take final action on the application within whichever of the following periods of time is longer:

404.1.1 Within 180 days after the certification of the final EIR or approval of the Negative Declaration, or

404.1.2 Within 180 days of the date on which the application was determined complete by the APCO.

- 404.2 Except as provided in Section 103, the APCO shall provide written notice of the final action to the applicant, any commenters, the U.S. Environmental Protection Agency, and the California Air Resources Board.

- 405 AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE CONTENT:** Each Authority to Construct and/or Permit to Operate issued by the APCO shall include the following minimum terms and conditions:

- 405.1 A provision stating that the emission unit shall be operated in a manner consistent with the application used to determine compliance with this rule.

- 405.2 The following emissions limitations shall be included, if applicable:

405.2.1 BACT emission limitations if required by Section 302. Such condition(s) shall be expressed in a manner consistent with testing procedures, such as ppmv NO<sub>x</sub>, g/liter VOC, or lbs/hr.

405.2.2 A quarterly emissions limitation for each offset pollutant, if offsets are required pursuant to Section 303.

405.2.3 An emission limitation (daily, monthly, or quarterly) shall be contained in the Authority to Construct and Permit to Operate for all NSR pollutants for which offsets are not being provided pursuant to Section 303, or when required to be consistent with ambient air quality standards.

405.3 Design, Operational, or Equipment Standards: If the APCO determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of a numerical emission standard infeasible, the APCO may instead prescribe a design, operational, or equipment standard. In such cases, the District shall make its best estimate as to the emission rate that will be achieved and shall specify that rate in required submissions to the U.S. Environmental Protection Agency. Any Authority to Construct or permit issued without an enforceable numerical emission standard must contain enforceable conditions which assure that the design characteristics or equipment will be properly maintained, or that the operational conditions will be properly performed, so as to continuously achieve the assumed degree of control.

- 406 **PUBLICATION AND PUBLIC COMMENT:** If a proposed project is required to provide offsets pursuant to Section 303, or if a proposed project may emit increased actual lead emissions at a rate of 5 tons per year or greater, within ten calendar days following a preliminary decision, the APCO shall publish in at least one newspaper of general circulation in the District a notice stating the preliminary decision of the APCO, noting how the pertinent information can be obtained, and inviting written public comment for a 30-day period following the date of publication.
- 407 **PUBLIC INSPECTION:** Except as provided in Section 103, the APCO shall make available for public inspection at the District's office the information submitted by the applicant and the APCO's analysis no later than the date the notice of the preliminary decision is published. Information submitted which contains trade secrets shall be handled in accordance with Section 6254.7 of the California Government Code and relevant sections of the California Administrative Code. Further, all such information shall be transmitted no later than the date of publication to the California Air Resources Board and the U.S. Environmental Protection Agency regional office, and to any party which requests such information.
- 408 **DENIAL, FAILURE TO MEET STANDARDS:** The APCO shall deny any Authority to Construct or Permit to Operate if the APCO finds that the subject of the application would not comply with the standards set forth in District, state, or federal rules or regulations.
- 409 **DENIAL, FAILURE TO MEET CEQA:** The APCO shall deny any Authority to Construct or Permit to Operate if the APCO finds that the subject of the application would not comply with the standards set forth in CEQA.
- 410 **ISSUANCE, PERMIT TO OPERATE:** The APCO shall issue a Permit to Operate an emissions unit subject to the requirements of this rule after determining that all conditions specified in the Authority to Construct have been complied with or will be complied with by the dates specified on the Authority to Construct. Such applicable conditions shall be contained in the Permit to Operate. Where a new or modified stationary source is, in whole or in part, a replacement for an existing stationary source on the same property, the APCO may allow a maximum of 90 days as a shakedown period for simultaneous operation of the existing stationary source and the new source or replacement.

**500 ADDITIONAL PROVISIONS FOR POWER PLANTS:** This Section shall apply to power plants with maximum ratings equal to, or in excess of 50 megawatts proposed to be constructed in the District and for which a Notice of Intention (NOI) or Application for Certification (AFC) has been accepted by the California Energy Commission.

**501** Within 14 days of receipt of a Notice of Intention, the APCO shall notify the California Air Resources Board and the California Energy Commission of the District's intent to participate in the Notice of Intention proceeding. If the District chooses to participate in the Notice of Intention proceeding, the APCO shall prepare and submit a report to the California Air Resources Board and the California Energy Commission prior to the conclusion of the non-adjudicatory hearing specified in Section 25509.5 of the California Public Resources Code. That report shall include, at a minimum:

501.1 A preliminary specific definition of Best Available Control Technology for the proposed facility;

501.2 A preliminary discussion of whether there is substantial likelihood that the requirements of this rule and all other District regulations can be satisfied by the proposed facility;

501.3 A preliminary list of conditions which the proposed facility must meet in order to comply with this rule or any other applicable District regulation.

The preliminary determinations contained in the report shall be as specific as possible within the constraints of the information contained in the Notice of Intention.

**502** Upon receipt of an Application for Certification for a power plant, the APCO shall conduct a determination of compliance review. This determination shall consist of a review identical to that which would be performed if an application for an Authority to Construct had been received for the power plant. If the information contained in the Application for Certification does not meet the requirements of this rule, the APCO shall, within 20 calendar days of receipt of the Application for Certification, so inform the California Energy Commission, and the Application for Certification shall be considered incomplete and returned to the applicant for re-submittal.

**503** The APCO shall consider the Application for Certification to be equivalent to an application for a permit to construct during the determination of compliance review, and shall apply all provisions of this rule which apply to applications for an Authority to Construct.

**504** The APCO may request from the applicant any information necessary for the completion of the determination of compliance review. If the APCO is unable to obtain the information, the APCO may petition the presiding Commissioner of the California Energy Commission for an order directing the applicant to supply such information.

**505** Within 180 days of accepting an Application for Certification as complete, the APCO shall make a preliminary decision on:

505.1 Whether the proposed power plant meets the requirements of this rule and all other applicable District regulations, and;

505.2 In the event of compliance, what permit conditions will be required including the specific Best Available Control Technology requirements and a description of required mitigation measures.

The preliminary written decision of this Section shall be treated as a preliminary decision under Section 403 of this Rule, and shall be finalized by the APCO only after being

subject to the public notice and comment requirements of Sections 406 and 407. The APCO shall not issue a determination of compliance for the power plant unless all requirements of this rule are met.

- 506** Within 240 days of the filing date, the APCO shall issue and submit to the California Energy Commission a determination of compliance or, if such a determination cannot be issued, shall so inform the California Energy Commission. A determination of compliance shall confer the same rights and privileges as an Authority to Construct only when and if the California Energy Commission approves the Application for Certification, and the California Energy Commission certificate includes all requirements of the conditions contained within the determination of compliance.
- 507** Any applicant receiving a certificate from the California Energy Commission pursuant to this Section and in compliance with all conditions of the certificate shall be issued a Permit to Operate by the APCO.

**600 MONITORING AND RECORDS**

- 601 RECORDKEEPING:** The following records shall be maintained for two years. Records shall be provided to the APCO upon request.
- 601.1 Emergency Engines: Records of hours of operation for maintenance purposes and for actual interruptions of electrical power. Such records shall include the date and hours of operation, as well as the reason for operation.
- 601.2 Portable and Temporary Equipment: Records of operating location(s) and corresponding dates of operation.

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11464 B Avenue, Auburn, CA 95603 • (530) 889-7130 • Fax (530) 889-7107  
[www.placer.ca.gov/apcd](http://www.placer.ca.gov/apcd)

August 21, 2002

## ADVISORY NOTICE FOR GASOLINE DISPENSING FACILITIES

This advisory notice is intended for all persons who are required to *have a Permit to Operate for a retail or a non-retail gasoline dispensing facility* in Placer County. Information is provided below regarding Enhanced Vapor Recovery regulations and Air Toxics Review of new and/or existing gasoline dispensing facilities.

### ENHANCED VAPOR RECOVERY

On April 1, 2001, the California Air Resources Board (ARB) adopted an "Enhanced Vapor Recovery" (EVR) program that seeks to fix existing problems with service station vapor recovery systems. This EVR Program will phase in new standards over a four (4) year period to achieve a total of 25 tons per day in statewide VOC emission reductions over the performance of existing systems. By April 1, 2005, all underground tanks will need to change to the new EVR equipment.

In the June 2002 Advisory sent out with this fiscal year's billing for your permits, the District noted that any changes that require an upgrade to EVR equipment requires an Authority to Construct. Based on clarification and information obtained from the California Air Resources Board (CARB), the District has refined the criteria for applying for and obtaining an Authority to Construct for the installation of Phase I EVR equipment.

The District is classifying the installation of Phase I EVR equipment into two categories: **major modifications** and **non-major modifications**.

A **major modification** is one in which underground excavation occurs and requires the replacement of Phase I vapor recovery equipment. All major modifications require an Authority to Construct prior to the installation of Phase I EVR replacement equipment.

A **non-major modification** occurs when replacing failed components on Phase I systems. All replacement parts must be EVR-certified parts or components. However, if Phase I EVR components or parts are not compatible, pre-EVR certified parts or components may continue to be sold and used. For example, currently there are no certified Phase I EVR components for Phase I coaxial systems, thus non-EVR components can still be used in repairs. All facilities that replace Phase I equipment as a non-major modification are required to notify the District to assure that such replacement is not considered a major modification. Additionally, facilities will be required to apply for and obtain an Authority to Construct to "capture" these changes when the EVR systems must be demonstrated to be in place by April 1, 2005.

Further information on EVR can be found at the CARB website under Programs at [www.arb.ca.gov](http://www.arb.ca.gov)

### AIR TOXICS REVIEW

Background

The Air Toxics "Hot Spots" Information and Assessment Act was enacted in September 1987, with subsequent amendments. The Air Toxics "Hot Spots" Act establishes a formal air toxics emission inventory risk quantification program that Districts manage. The goal of the Air Toxics "Hot Spots" Act is to:

- ? collect emission data indicative of routine predictable releases of toxic substances to the air;
- ? identify facilities having localized impacts;
- ? evaluate health risks from exposure to the emissions;
- ? notify nearby residents of significant risks; and
- ? reduce risk below the determined level of significance.

Those facilities that pose a potentially significant health risk are required to reduce their risks, thereby reducing the near-source exposure of Californians to toxic air pollutants. Significant risks posed by facilities require public notification and if requested, districts must make health risk assessments available for public review.

The District is evaluating both proposed and existing GDFs to determine the cancer risk that is based upon annual gasoline throughput. Listed below is the specific process for proposed and existing facilities.

**For proposed facilities**, the District is using an initial health risk screening that is based upon the proposed annual throughput for the facility. For those facilities proposing to pump 1.5 million gallons of gasoline or more a year (i.e. those that have a cancer risk greater than 10-in-a-million), a slightly refined risk screening analysis will be conducted by utilizing distance information from the centroid of the pump islands to the nearest commercial and residential structures. If the cancer risk remains greater than 10-in-a-million following the refined risk assessment, a gasoline throughput limitation will be placed upon the facility. This limitation will be based on a gasoline throughput that will reduce the cancer risk to less than 10-in-a-million. If the applicant chooses, a detailed health risk assessment, approved by the District, may be conducted by the applicant or risk reduction measures may be implemented to reduce emissions. These steps may result in the 10-in-a-million cancer risk threshold being exceeded at a higher annual gasoline throughput limitation.

**For existing GDFs**, the District is reviewing the high throughput facilities that have an initial screening of greater than 10-in-a-million cancer risk. Information regarding distances from the centroid of the pump islands to the nearest commercial and residential structures is being gathered to refine the initial screening. If the cancer risk remains greater than 10-in-a-million, then the risk analysis will be submitted to the facility for review and comment before being forwarded to the Office of Environmental Health Hazard Assessment (OEHHA) for approval.

Following OEHHA approval of the risk assessment, Public Notification is required of all persons exposed in accordance with adopted District policies, and risk reduction through gasoline throughput curtailment or improved emission controls will be required. These requirements are likely to apply to only those facilities that have a very high annual throughput and with neighbors in close proximity.

This advisory notice and other previously issued advisories can be found on our website at [www.placer.ca.gov/apcd](http://www.placer.ca.gov/apcd) or by calling Ms. Ann Hobbs at (530) 889-7137.



## REVISED FINAL TECHNICAL MEMORANDUM

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**To:** James B. Wiley  
Partner  
Taylor & Wiley

**Date:** April 27, 2018

**From:** Ray Kapahi *RK*

**Project:** Fiddymment Plaza Gasoline  
Station HRA

*Tel:* 916-687-8352

*E-Mail:* [ray.kapahi@gmail.com](mailto:ray.kapahi@gmail.com)

**Subject:** Analysis of Public Health Risks Associated with Proposed Gasoline Station  
Roseville, California

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### 1. INTRODUCTION

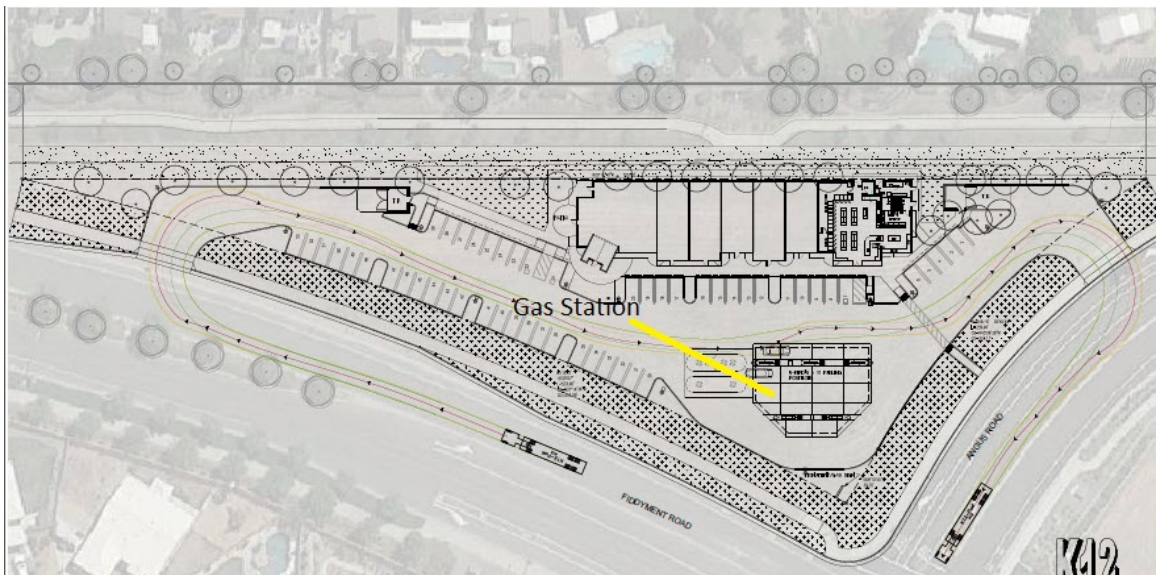
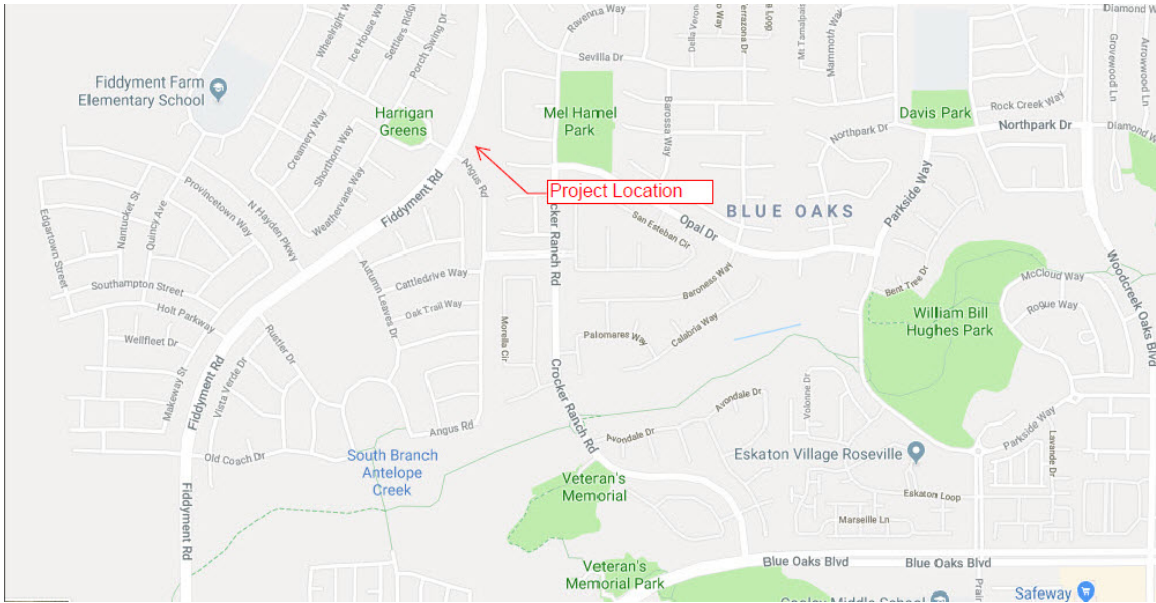
Environmental Permitting Specialists (EPS) has been retained by the law firm Taylor & Wiley to evaluate potential health risks associated with the operation of a proposed gasoline station. The proposed gasoline stations would be located at the Fiddymment Plaza commercial center at 4701 Fiddymment Road in Roseville, California (Figure 1).

The proposed gasoline station would dispense a maximum of 1,008,000 gallons of gasoline per year from five dispensing pumps. Each dispensing station is equipped with Enhanced Phase II vapor recovery nozzles.

The process of gasoline delivery to the gas station as well as vehicle re-fueling would release small amounts of gasoline vapors into the atmosphere. Gasoline contains trace amounts of benzene that is regulated as a toxic air contaminant by the Placer County Air Pollution Control District (PCAPCD).

# Figure 1

## Project Location and Site Map



EPS evaluated the release and dispersion of gasoline vapors from the gasoline station to nearby homes and potential health risks associated with exposure to gasoline vapors and benzene.

Three types of health risks were evaluated from exposure to gasoline vapors:

1. Cancer Risk
2. Chronic Non-Cancer Risk
3. Acute Non-Cancer Risk

A three-step procedure was used to determine these health risks.

1. Calculate the emission rates of gasoline and benzene into the atmosphere
2. Determine the concentration of benzene in the vicinity of the proposed gasoline station
3. Calculate health risks associated with exposure to benzene

These steps are discussed below. The results of the analysis appear in Section 4 followed by a discussion of the significance of the health risks. Detailed calculations and other technical data are attached.

## 2. ESTIMATE OF EMISSIONS

Gasoline and benzene vapors are released into the atmosphere from a variety of sources and processes at a gasoline dispensing station. These sources and processes include the actual dispensing of gasoline, bulk delivery of fuel, spillage, hoses, etc..

The emissions from vehicle refueling depend on two factors:

1. If the vehicle is equipped with an on-board re-fuelling vapor recovery system (ORVR) system
2. Category/type of vapor recovery system being used at the gasoline dispensing facility

Since not all vehicles are equipped with ORVR, we estimated the fraction of vehicles equipped with ORVR using ARB estimates. These estimates appear in Table 1-2, of the ARB document: *Revised Emission Factors for Phase II Vehicle Fueling at California Gasoline Dispensing Facilities, December 23, 2013*. For 2018, the percent of gasoline dispensed to ORVR vehicles is 83%.

The proposed gasoline dispensing facility would be equipped with Phase II Enhanced Vapor Recovery (EVR). ARB has determined that the emission factors for Phase II EVR and these emission factors appear in Table 1-1 in the December 23, 2013 ARB

document referenced above. For ORVR with Phase II EVR, the recommended emission factor is 0.021 lbs of total organic compounds per 1,000 gallons of gasoline dispensed.

Based on these factors and with discussions with PCAPCD staff, Table 1 presents the annual emission rates of toxic air pollutants. The main TAC associated with gasoline dispensing is benzene. In addition to annual emissions, maximum daily emissions were calculated based on peak daily gallons of gasoline dispensed and delivery of gasoline on the same day. Under this scenario, peak daily gallons dispensed is two times the monthly daily average and delivery of 25,000 gallons of bulk fuel all on the same day.

Under this scenario, maximum daily emissions of benzene were estimated to be as follows:

Emissions from Bulk Delivery of Fuel:  $0.00045 \text{ lbs Benzene/kgal} \times 25 \text{ kgal} = 0.00113 \text{ lbs}$

Emissions from Re-Fueling:  $20 \text{ kgal} \times 0.002742 \text{ lb/kgal} = 0.05484 \text{ lbs}$

Total [Bulk Delivery + Re-Fueling] =  $0.056 \text{ lbs/day}$  or  $0.00233 \text{ lbs/hr}$ .

The California Air resources Board (CARB) and the California Air Pollution Control Officers Association (CAPCOA) have issued industry wide risk assessment guidelines for determining public health risks near gasoline stations.

EPS has followed these Guidelines and in consultation with PCAPCD determined the emission rates of benzene based on 1,008,000 gallons of fuel per year at the proposed gasoline station. The emission estimate is summarized in Table 1. Overall, the facility would release approximately 3 pounds of benzene per year,

<b>Table 1</b>					
<b>Estimate of Emissions</b>					
Source	Gasoline Vapor/Liquid	Emission Factor			Emissions Benzene (lb/yr)
		TOG (lb/kgal)	Benzene (lb/kgal)		
Phase II Fueling	Vapor	0.081	0.000243		0.245
Bulk Delivery	Vapor	0.15	0.00045		0.454
Pressure	Vapor	0.024	0.000072		0.073
Spillage	Liquid	0.24	0.0024		2.419
Hoses	Vapor	0.009	0.000027		0.027
				<b>TOTAL</b>	<b>3.218</b>
Annual Gasoline Throughput:		1,008,000	gallons/yr		
Benzene Content:		1,008	kgal/yr		
	In Vapor	0.30%			
	In Liquid	1%			

### **3. DETERMINE THE CONCENTRATION OF BENZENE**

The concentration of benzene at nearby homes depends on the emission rate (calculated in Section 2), distance of the homes from the gasoline station and local weather conditions (wind speed, wind direction, temperature) and details of the release (e.g., release height, geometry of the pump, etc).

An air dispersion model was used to calculate the concentration of benzene in the vicinity of the project site. CARB and PCAPCD recommended AERMOD dispersion model was used along with four years of hourly meteorological data from Sacramento Metropolitan International Airport. The meteorological data covered the period (2010 to 2014). A description of AERMOD is provided in Appendix. Figure 2 shows the layout of the modeling grid used in determining the concentration of benzene. The modeling domain included location of five nearby homes and a total of 625 individual grid points spaced 50 meters apart.

### **4. CALCULATE HEALTH RISKS**

Health risks from exposure to benzene were calculated based on its concentration (Section 3) and its toxicity. EPS used the HARP2 risk model developed by CARB and the Office of Environmental Health Hazard Assessment (OEHHA) to calculate the actual health risks. As noted in Section 1, three types of health risks were calculated (cancer, chronic non-cancer and acute non-cancer).

Figure 2  
Modeling Domain



The spatial distribution of cancer risk is shown in Figure 3. The results are in terms of a probability (cancers risk per million). The maximum cancer risk at nearby homes is 1.2 cancers per million. Risk at other homes varies between 1.2 to less than 0.1 cancer per million.

The maximum non-cancer risks at nearby homes are calculated in terms of a hazard index (HI) as follows:

Maximum Chronic Non-Cancer (HI);                      0.005

Maximum Acute Non-Cancer HI:                              0.15

Excerpts of the HARP2 model showing the calculated health risks are attached.

## 5. SIGNIFICANCE AND INTERPRETATION OF ESTIMATED PUBLIC HEALTH RISKS

A comparison of estimated project risk with the thresholds of significance is shown in Table 2.

<b>Table 2 Comparison of Maximum Project Health Risks with Significance Thresholds Established by Placer County Air Pollution Control District</b>			
<b>Risk Metric</b>	<b>Max. Project Risk</b>	<b>Significance Threshold</b>	<b>Risk Significant?</b>
30 year Cancer Risk	1.2	10 per million	No
Chronic Hazard Index	0.005	1.0	No
Acute Hazard Index	0.159	1.0	No

The health risks summarized in Table 2 are *theoretical* calculations that based on several conservative assumption. Understanding the assumptions and uncertainties is a critical component in interpreting the risk results presented in this evaluation.

For example, the calculations assume the maximum amount of fuel (1,008,000 gallons) will be dispensed annually for 30 years. It was further assumed that individuals would be continuously exposed to the toxic emissions for 30 years. This is very conservative since most residents do to stay in their homes 24 hours per 365 days per year for 30 years. As

a result of this assumption, the risk is overstated by a factor of 2 to 3. In other words, the risk would be one half to one third the values presented in Table 2.

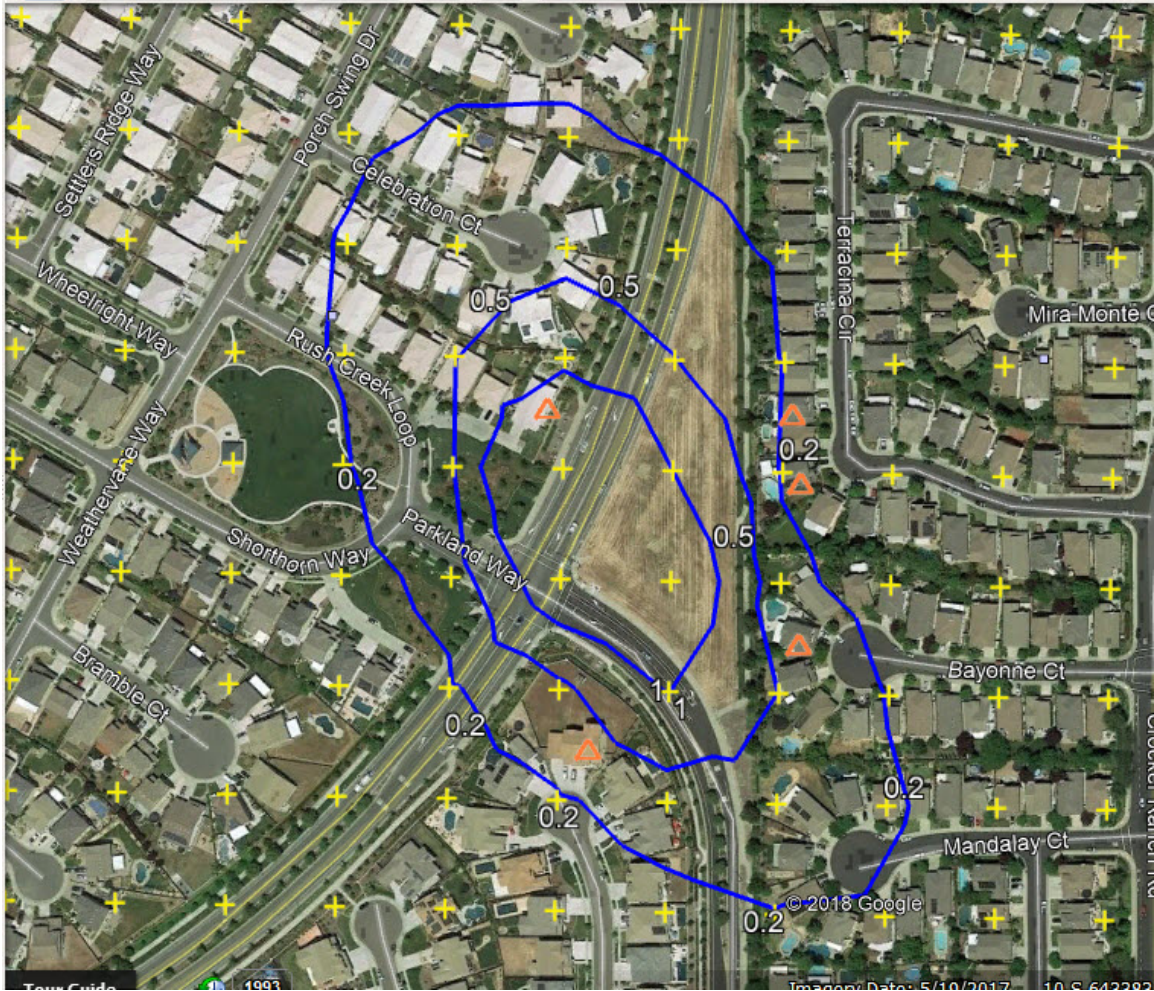
Finally, the toxicity data used to calculate health risks are extrapolated from animal studies with a substantial safety margin and uncertainty. As a result, the actual public risk would be a small fraction (1/100 to 1/1000) of the calculated theoretical public risk.

EPA in 1989 noted that the conservative assumptions used in the risk assessment are intended to assure the public that the estimated risk is not underestimated. The actual risks posed by the site do not represent actual risks that would be experienced by the public at or near the site.

The 1989 EPA report states that:

*“These values (of risk estimates) are upper bound estimates of excess cancer risk potentially arising from lifetime exposure to the chemical in question. A number of assumptions have been made in the derivation of these values, many of which are likely to overestimate exposure and toxicity. The actual incidence of cancer is likely to be lower than these estimates and may be zero.”*

**Figure 3**  
**Spatial Variation of Cancer Risk (per million)**



## 6. REFERENCES

CAPCOA (1997) "Gasoline Service Station Industry wide Risk Assessment Guidelines", November 1997. Available at: <https://www.arb.ca.gov/ab2588/rrap-iwra/GasIWRA.pdf>

CARB (2013) "Revised Emission Factors for phase II Vehicle Fuelling at California Gasoline Dispensing Facilities" December 2013. Available at: <https://www.arb.ca.gov/vapor/gdf-emisfactor/gdf-emisfactor.htm>

EPA (1989) Risk Assessment Guidance for Superfund Human Health Risk Assessment. US EPA Region IX Recommendations. San Francisco, CA December 15, 1989.

OEHHA (2017) " Air Toxics Hot Spots Program". Information available at: <https://oehha.ca.gov/air/air-toxics-hot-spots>



7068 Riverside Boulevard, Sacramento, CA 95832 - Phone: 916-687-8352 - Web: [www.epsconsulting.org](http://www.epsconsulting.org)

## RESPONSE TO COMMENTS ON FIDDYMENT PLAZA GAS STATION ROSEVILLE, CA

EPS has reviewed the comments received from the Law Office of Donald B. Mooney, dated July 11, 2019 and the attached exhibits to the letter, including correspondence from Dr. Markus Hilpert, dated June 22, 2019. Based on our review, no revisions to the FTM are necessary because the analysis correctly assessed the maximum residential cancer and non-cancer risks associated with the Project. The basis for this conclusion is provided in our responses to the specific comments below.

### 1. NUMERICAL GRID IS TOO COARSE

#### Comment

The comment raises three (3) issues:

1. The numerical grid is too coarse at locations where exposure can be expected to be the highest
2. Some residential properties were modeled only as single receptors. As a result, this approach does not account for the fact that residents spend part of the time at different locations of their property
3. For several nearby residential properties, benzene exposure and cancer risk was not modeled at all.

#### Response

##### 1.Numerical Grid is Too Coarse

The comment fails to recognize that two categories of receptor locations were modeled:

- A grid consisting of 625 individual locations around the proposed gas station
- Discrete receptors placed selected residences to pinpoint the risk

The grid provides an overview of the spatial distribution of risk in the vicinity of the gas station. Since the individual grid points may not coincide with the exact location of homes near the gas station, discrete receptors were placed at selected residences where the highest cancer risk is likely to occur.

The regulatory metric in determining the project's impact on public risk is maximum residential cancer and non-cancer risk. A project's impacts are considered significant if maximum cancer risk exceeds 10 in a million or if

non-cancer hazard indices exceed 1.0. For the current project, the maximum residential cancer risk was estimated to be 1.2 cancers per million. Non-cancer risks were estimated to be below 1 at all residential locations.

We agree that the health risks would be higher on the gas station property, including the fence line. However, there are no residences at these locations. Therefore, although on-site risks are greater, such risks are irrelevant in determining the project's impact on public health risk. Since there are no residences at these locations, health risks at these areas are not an issue.

A review of the spatial distribution of cancer risk (Figure 3 FTM) shows that the highest residential risks occur approximately 75 meters northwest of the project. These are residences between the risk contours labeled 1.0 and 0.5 cancers per million. Since Figure 3 provides only an approximate estimate of cancer risk, a second set of receptors were used to pinpoint the risk at individual residences. These receptors appear as triangles in Figure 3 of FTM. Based on the cancer risks at these residences, it was determined that the maximum residential cancer risk occurs 75 meters NW of the project. Cancer risk at all other residential locations is lower than the risk at this location.

For example, the cancer risk at residences east and north-east of the gas station ranges from 0.5 to 0.2 cancers/million. These include residences along Terracina Circle and Mira Monte Court north and east of the gas station.

Would the use of a finer grid identify residential areas where the risks are greater than those shown in the FTM Figure 2?

To address this possibility, EPS re-modeled the risk using a grid size of 20 meters (versus 50 meters used in the FTM Figure 2). Under this scenario, a 100 meter x 100 meter square would have 25 receptors (versus 4 receptors used in the FTM Figure 2). Our analysis shows that the spatial distribution of cancer risk is virtually identical when using the finer grid. The maximum residential cancer risk still occurs at the same location as identified in the FTM Figure 2. See Exhibit A for a side by side comparison of the risk distribution.

#### 2. Some residential properties were modeled as single receptor.

The FTM analysis provided risk at the center of the residence. Risk at other locations on the property, for example, the back yard would be similar. To verify this, we ran the HARP2 model for the residence with the highest cancer risk (Receptor # 626) by placing additional receptors at each corner of the property. Cancer risk was calculated and a spatial average over the entire property was calculated (See Exhibit B). The results show that the spatially averaged cancer risk over the entire property is 1.034 cancers/million as compared to 1.211 cancers/million reported in the FTM. This calculation demonstrates that when we take into account that individuals may spend time at different locations on the property, the overall, spatially averaged cancer risk is 14.6% lower than peak risk reported in the FTM at a single location.

#### 4. For several properties, benzene exposure and cancer risk were not modeled

All the residences within 1.25 kilometers (0.75 miles) were included in the modeling grid. Not every residence was modeled as a single discrete location. This is because the cancer risk at most of the residences were well below 0.5 cancers per million. The focus of the analysis was on maximum residential cancer risk which was estimated to be 1.2 cancers/million. Risks at all residences can easily be inferred by reviewing FTM Figure 3 and Exhibit A.

## 2. NON-SUITABLE SQUARE GRID

### Comment

For computational purposes, it would have made much more sense to use polar coordinates with the origin at the center.

### Response

EPS elected to use a rectangular (X-Y) coordinate grid for several reasons. First, the location of emission sources in the HARP2/AERMOD model can only be specified as X-Y coordinated (see Section 3.5, Attachment 1, CAPCOA 2009 Guidelines "Coordinate System"). Second, the terrain elevations developed by the US Geological Survey are only available in X-Y format, not in polar coordinates. Finally, the modeling results were overlaid onto Google Earth that uses a X-Y [Universal Transverse Mercator (UTM)] coordinate system not a polar coordinate system.

In our view, using a polar coordinate system for the modeling grid and then using an X-Y system for other parameters makes no sense when a single coordinate system could be used throughout the modeling effort. We note that the risk at any given location depends on its location relative to the gas station; not on the choice of the coordinate system. Therefore, regardless of the coordinate system, the risk results would remain the same.

## 3. QUESTIONABLE INTERPOLATION OF HEALTH RISK

### Comment

Numerical grid is too coarse to capture the non-linearities in cancer risk in the vicinity of the gas station.

### Response

As noted in the response to Comment #1, risks near the gas station are not relevant as there are no residences at that location. A more refined grid would capture the risk near the gas station, however, risk at or near the gas stations is not relevant for the purposes of determining maximum residential risk.

No interpolation was used to determine maximum cancer risk. Instead, discrete receptors were placed a several nearby residences to pinpoint the location and value of maximum risk.

## 4. RECEPTOR HEIGHT WAS NOT STATED

### Comment

Risks were not calculated at the height of the breathing zone or at the height of the vent pipe.

### Response

Risks were calculated at ground level (0 meters above ground). The risk 1.5 meters above ground (typical breathing height) or at a two story dwelling would be similar to the risk at ground level. In order to demonstrate this, the cancer risk was re-calculated at several residences assuming receptor elevation of 1.5 meters. At one location, the risk was calculated assuming a 10 meter receptor height that would simulate a 2 story residence. The results show no difference in the cancer risk. See Exhibit C.

## 5. MODELING OF EMISSION LOCATIONS MIGHT BE INADEQUATE

### Comment

It is not clear where the individual emission sources of the gas station are located.

### Response

The location of the gasoline pumps is shown in Figure 1 of the FTM. The specific (UTM Zone 10) coordinates of the gasoline pumps and the vent pipe used in the analysis are as follows:

#### Gasoline Pumps (Modeled as Volume Sources)

LOCATION V1 VOLUME 643267 4296458

LOCATION V2 VOLUME 643268 4296452

LOCATION V3 VOLUME 643272 4296462

LOCATION V4 VOLUME 643273 4296458

LOCATION V5 VOLUME 643276 4296453

#### Vent Pipe (modeled as point source)

LOCATION S1 POINT 643280 4296477

Excerpts of the HARP2 model showing these location coordinates are provided in Exhibit D.

Vent pipe emissions were included in the risk calculation for each grid and discrete receptor. As noted in response to Comment #1, however, the maximum residential cancer risk occurs to the northwest approximately 75 meters from the pumps. The highest residential risk does not occur at the closest residences due to the prevailing winds that blow from the south/southeast.

## 6. CALCULATION OF CANCER RISK

### Comment

The FTM missed to make clear how cancer risk was inferred from the modeled atmospheric benzene concentration.

### Response

Consistent with CAPCOA July 2009 Guidelines (Attachment 1, Appendix B), the FTM noted that HARP2 risk model was used. In addition, EPS staff consulted with PCAPCD staff to confirm the most current methodologies are used. This is consistent with the guidance in the CAPCOA 2009 HRA Guidelines (Attachment 1). Excerpts of these Guidelines appear below.

The Exposure Assessment components are based on the procedures developed by the California Office of Environmental Health Hazard Assessment (OEHHA). These calculation methodologies may change over time as the OEHHA refines the methodologies. **It is important that the air district be contacted before any risk assessment calculations are prepared, so that the most current methodologies are applied.**

The HARP2 model is based on the most current (2015) OEHHA Guidelines. The OEHHA Guidelines also recommend that an exposure of 30 years be used. This is the exposure that was also recommended by PCAPCD staff and therefore a 30 year exposure was used in the analysis. The 2005 CalEPA/CARB guidance noted in the comment is out of date. It has been replaced by the 2015 OEHHA Guidelines. Excerpts of the HARP2 model were provided in the FTM. Additional excerpts appear in Exhibits C and D.

## **7. EMISSIONS FROM SEPARATOR POTENTIALLY UNDERESTIMATED**

### Comment

Emissions of VOCs from separator due to overpressure were potentially underestimated

### Response

The comment incorrectly assumes that an overpressure alarm would automatically result in excess VOC emissions being released into the atmosphere. This is because the vent pipe from the underground storage tanks does not vent directly into the atmosphere. The system that will be used at the gas station differs from the schematic referenced in Hilpert et al. 2019 "Graphic Abstract". The schematic used in the technical paper shows a vent pipe leading from the underground tank into the atmosphere.

This is not the case with the current project. Emissions in the vent pipe are removed using activated carbon. The activated carbon, is routinely replaced to ensure removal of VOCs. As a result, no excess emissions would occur and the acute RELs noted in the comment would not be exceeded.

## **8. EMISSIONS FROM NON-PERMITTED SOURCES**

### Comment

Emissions from both permitted and non-permitted sources need to be included in the risk assessment.

### Response

The comments noted that the FTM did not address the combined health risk associated with both permitted and non-permitted emission sources associated with the proposed project. The FTM focused on permitted (stationary) sources. As noted in the comment, CEQA requires an evaluation of emissions from both permitted and non-permitted emission sources. Therefore, this memorandum address the additional health risk from non-permitted/exempt sources from the Fiddymnt Plaza project.

For the proposed project, there are two permit exempt emission sources that would contribute to public health risks:

1. Fuel delivery trucks
2. Autos and light trucks visiting the facility (customers)

Fuel delivery trucks would release diesel particulate matter (DPM). DPM is regulated as a carcinogen by the Office of Environmental Health Hazard Assessment (OEHHA)<sup>1</sup> and the California Air Resources Board (CARB). It consists of both organic and metal emissions.

Fuel delivery trucks would travel Northeast on Fiddymment Road (from Blue Oaks Drive) and then enter Fiddymment Plaza. Customers could travel Northeast or Southwest on Fiddymment Road and enter the Plaza. The travel routes for the fuel delivery trucks and autos are shown in Figure 1, Exhibit E.

## ESTIMATE OF EMISSIONS

### Emissions from Fuel Delivery Trucks

Fuel would be delivered using 11,000 gallon tanker trucks. Approximately 100 deliveries per year are expected. DPM emissions would be released along Fiddymment Road and on-site from truck idling.

The emission rate of DPM during truck travel and truck idling is based on the EMFAC 2017 emissions model<sup>2</sup>. This model provides emission rates of fine particulate (PM-10) associated with vehicle travel or vehicle idling. PM-10 is assumed to represent the DPM. Calculation of annual DPM emissions based on 100 fuel deliveries per year is provided in Table 1, Exhibit E

Truck emissions during travel along Fiddymment Road are modeled as a single line source 0.25 miles in length. Truck idling emissions are modeled as a single point source located near the gasoline dispensers with a release height of 10 feet. The maximum idle time is assumed to be 10 minutes per truck consistent with current regulations<sup>3</sup>.

### Emissions from Autos and Light Trucks

It is estimated that 1,000 vehicles would enter the facility daily. This is based on the 10<sup>th</sup> Edition of ITE Trip Generation Manual<sup>4</sup> for *Gasoline/Service Station with Convenience Market*. Customer vehicles (assumed to be automobiles and light-duty trucks) would travel Northeast or Southwest along Fiddymment Road as shown in Figure 1, Exhibit E. For the purposes of this analysis, it was assumed that project trips would be evenly split in either direction. Thus, an average of 500 vehicles per day to/from the project site were assumed to travel in each direction along Fiddymment Road.

Cars and light trucks release a variety of toxic air emissions, such as formaldehyde and benzene. There have been numerous studies that have measured toxic air emissions from on-road cars and light trucks. Two studies sponsored by CARB<sup>56</sup> specifically measured the emission rates of toxic emissions from cars in Northern and

<sup>1</sup> 2018 "Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values", August 20, 2018. Available at: <https://ww3.arb.ca.gov/toxics/healthval/contable.pdf>

<sup>2</sup> EMFAC 2017 Web Database. CARB 2017. Available at: <https://www.arb.ca.gov/emfac/2017/>

<sup>3</sup> 13 CCR Section 2485. Available at: [https://ww3.arb.ca.gov/msprog/truck-idling/13ccr2485\\_09022016.pdf](https://ww3.arb.ca.gov/msprog/truck-idling/13ccr2485_09022016.pdf)

<sup>4</sup> ITE Trip Generation Manual 10<sup>th</sup> Edition for Land use 945. Available at: <https://www.ite.org/technical-resources/topics/trip-and-parking-generation/trip-generation-10th-edition-formats/>

<sup>5</sup> Zhu, X, et. Al (July 2004) "Internal Combustion Engine (ICE) Air Toxic Emissions" Final Report to CARB. University of California Riverside. Available at: <https://ww3.arb.ca.gov/research/apr/past/02-334parta.pdf>

<sup>6</sup> Harley, R. A. (August 2004) "Chemical Composition of Vehicle-Related Volatile Organic Compound Emissions in Central California. Final Report to CARB. Dept. of Civil and Environmental Engineering, University of California Berkeley. Available at: [https://www.arb.ca.gov/airways/ccos/review/reports/sip\\_support/00-14/II5\\_0014\\_Aug04\\_dfr.pdf](https://www.arb.ca.gov/airways/ccos/review/reports/sip_support/00-14/II5_0014_Aug04_dfr.pdf)

Central California. Based on these studies, the most common toxic air emissions released from cars and light trucks are:

- 1,3 Butadiene
- Acetaldehyde
- Formaldehyde
- Benzene

These two studies quantified the emission rates of each of these toxic air emissions in terms of grams per vehicle mile. Annual emission rates of these toxic air pollutants were calculated based on these studies for the two 0.25 mile segments identified in Figure 2. Detailed calculations are provided in Table 2. To account of on-site emissions (idling/start-up and shut-down), the annual emissions were increased by 50%.

Emissions from autos were modeled as two individual line sources (Segment 1 and 2 in Figure 2). Each line source would be 0.25 mile in length and carry 500 vehicles per day (total 1,000 vehicles per day) entering and exiting Fiddymment Plaza.

## **ESTIMATE OF HEALTH RISKS**

As in the FTM, the HARP2 model was run to determine the maximum residential cancer risk. With the exception of the addition of new sources, no other changes were made in running the HARP2 model. Inclusion of emissions from autos and fuel delivery trucks increases the maximum cancer residential risk from 1.21 to 2.36 cancers/million. The overall distribution of cancer risk is shown in Figure 4, Exhibit E. The maximum residential cancer risk at receptor 262 is identified in Figure 5, Exhibit E.

Inclusion of emissions from cars and trucks did not change the location of maximum cancer risk. The point of maximum residential cancer risk remains at the Northwest corner of Fiddymment Road and Parkland Way (Receptor # 626).

Non-cancer risks were calculated in terms of a Hazard Index (HI). For both acute and chronic risks, the HI was below 0.01 at all receptors. A HI index above 1 denotes a significant non-cancer health risk.

In the FTM, an approximate hourly emission rate of benzene was used (0.1 lbs/hr) that resulted in a very conservative estimate of an acute HI of 0.159.

In the current analysis, the hourly emission rate was calculated by dividing the annual emissions by the number of hours per year (8,760 hours per year). The calculated hourly emission rates are shown in Figure 3, Exhibit E. As shown in this figure, the actual hourly emission rates of benzene and other pollutants are well below 0.001 lbs/hr. This has resulted in an acute hazard index below 0.01 at all receptors.

Overall, the inclusion of emissions from permit-exempt sources did not lead to significant residential cancer or non-cancer health risks.

## Exhibit A

# Comparison of Spatial Variation of Cancer Risk Using a Finer Grid

Figure 1a

Risk Contours Based on 50 meter Grid

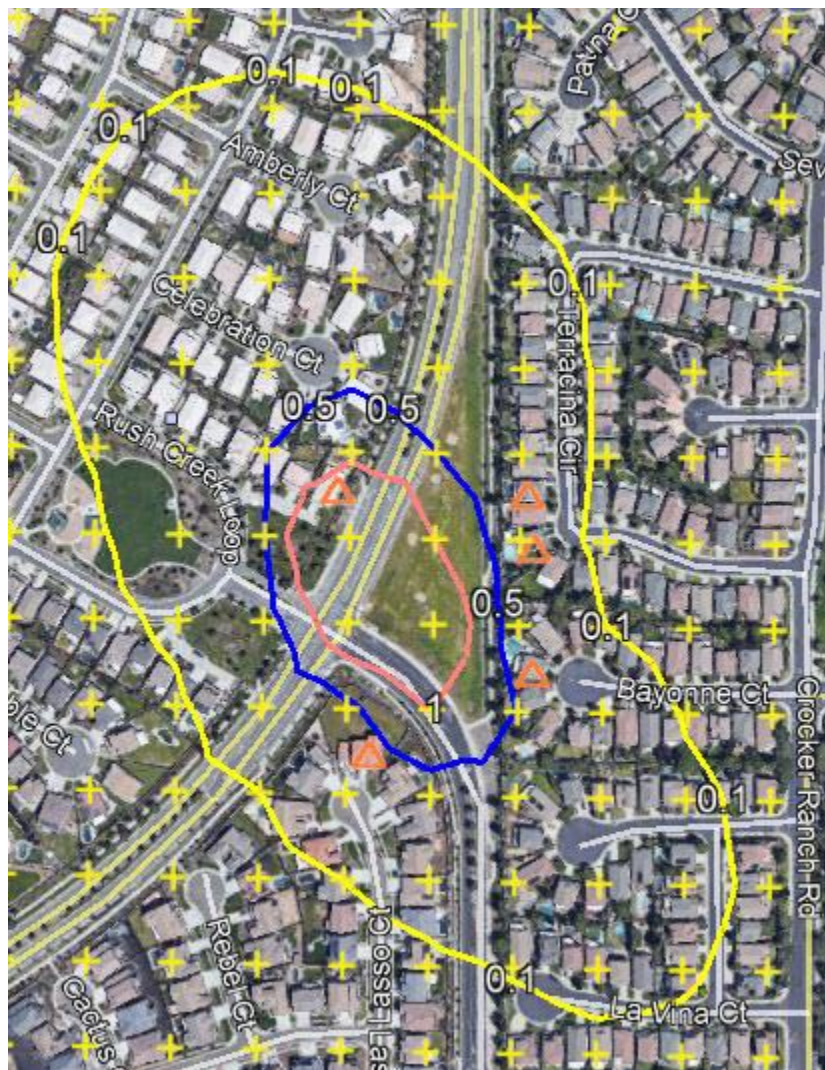


Figure 1b

Risk Contours Based on 20 meter Grid



### EXHIBIT B

### Variation of Cancer Risk Within the Property Boundaries



<b>Location</b>	<b>Cancer Risk <i>(per million)</i></b>
NW Corner	0.755
NE Corner	0.792
SW Corner	0.897
SE Corner	1.692
Average Cancer Risk Over Property	1.034
Original Cancer Risk Reported in FTM	1.211
Difference	0.177
% Difference	-14.62%

## Exhibit C

## Evaluation of Cancer Risk for Elevated Receptors

Sensitive Receptors					
Import    Export    Save    Delete All					
	ID	X (m)	Y (m)	Elev (m)	Name
	S1	643242.68	4296527.04	10	Residence
	S2	643358.89	4296422.12	2	Residence
	S3	643358.49	4296494.96	2	Residence
	S4	643354.19	4296525.87	2	Residence
	S5	643263.85	4296373.22	2	Residence
	NW	643239.80	4296551.65	10	NW Comer of Lot
	NE	643259.74	4296549.74	10	NE Comer of Lot
	SW	643219.23	4296511.45	10	SW Comer of Lot
	SE	643237.66	4296501.19	10	SE Comer of Lot
▶*					

Cancer Risk

626	SENSITIV	Residenc	643242.7	4296527	1.2117e-06	30YrCancerDerived_InhSoilDemMMilk_FAH16to70
627	SENSITIV	Residenc	643358.9	4296422	3.4820e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70
628	SENSITIV	Residenc	643358.5	4296495	1.4634e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70
629	SENSITIV	Residenc	643354.2	4296526	1.7472e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70
630	SENSITIV	Residenc	643263.9	4296373	3.0790e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70
631	SENSITIV	NW Come	643239.8	4296552	7.5458e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70
632	SENSITIV	NE Come	643259.8	4296550	7.9210e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70
633	SENSITIV	SW Come	643219.3	4296512	8.9670e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70
634	SENSITIV	SE Come	643237.7	4296501	1.6922e-06	30YrCancerDerived_InhSoilDemMMilk_FAH16to70

## Exhibit D

# Excerpts of HARP2 Model Results Showing Location of Emission Sources

Sources						
Add	Import	Export	Delete All	View		
	Source ID	Description	Source Type	Group ID	X	Y
▶	V1	Gas Pump 1	VOLUME		643267	4296458
	V2	Gas Pump #2	VOLUME		643268	4296452
	V3	Gas Pump #3	VOLUME		643272	4296462
	V4	Gas Pump #4	VOLUME		643273	4296458
	V5	Gas Pump #5	VOLUME		643276	4296453
	S1	Gasoline Tank Vent	POINT		643280	4296477

## EXHIBIT E

### Risks from Non-Permitted Sources

Table 1

## Calculation of Emissions of DPM from Fuel Delivery Trucks

**Emissions From Truck Travel Along Fiddymont Road**

No. of Trucks	100	veh/yr	<i>Based on 100 fuel deliveries/yr</i>
Length of Roadway	0.25	mile	per segment
Annual miles travelled	25	miles/yr	

	EF <sup>1</sup>	Emission Rate (Vehicle Travel)		
		(g/mile)	(g/yr)	Lbs/yr
TAC				
DPM	0.084655	2.116	0.0047	

**On-Site Emissions From Truck Idle**

No. of trucks	100	trucks/yr
Idle time/truck	10	minutes per truck
Total annual idle time	16.67	hrs/yr
Truck Idling Emission Factor <sup>2</sup>	0.01438	grams/day per truck
	0.000599167	grams/hr per truck
Truck idle emissions (all trucks)	0.0100	grams/yr
	2.20E-05	lbs/yr

## Notes:

1. From EMFAC 2017 for Placer County for trucks travelling at 35 mph.
2. Idle emission factor from EMFAC 2017.

**Table 2**  
**Calculation of Emissions of Autos Based on 1,000 Trips per Day**

No. of Vehicles per Day	1,000	veh/day total
	365,000	veh/yr total
	182,500	veh/yr per segment
No. of segments	2	
Length of segment	0.25	mile
Annual miles travelled per segment	45,625	miles/yr

	EF <sup>1</sup>	Emission Rate (Off-Site Vehicle Travel)			Total Emissions (vehicle travel + idle + start-up/shut down)
Toxic Air Contaminant	(mg/mile)	(mg/yr)	(g/yr)	(lb/yr)	(lb/yr)

1,3 Butadiene	4.48	204,400	204.4	0.450	0.675
Benzene	45.28	2,065,900	2065.9	4.550	6.826
Formaldehyde	12.87	587,194	587.2	1.293	1.940
Acetaldehyde	2.77	126,381	126.4	0.278	0.418

**NOTES**

1. Emission Factors From: Zhu, Durbin, Norbeck and Cocker (July 2004)

"Internal Combustion Engine (ICE) Air Toxic Emissions"

Final Report to Research Division CARB, Sacramento, CA

2. Traffic volume based on estimates in ITE Trip Generation Rates (10th Ed) for Land Use 945

"Gasoline/Service Station with Convenience Market"

3. Emissions from Vehicle Idle + start-up and shut-down estimated to equal 50% of emissions from off-site vehicle travel

Figure 1  
Fuel Delivery and Auto Travel Routes



Figure 2  
Screenshot of HARP2 Model Showing Additional Sources

Sources						
Add Import Export Delete All View						
	Source ID	Description	Source Type	Group ID	X	Y
	V1	Gas Pump 1	VOLUME		643267	4296458
	V2	Gas Pump #2	VOLUME		643268	4296452
	V3	Gas Pump #3	VOLUME		643272.	4296462.
	V4	Gas Pump #4	VOLUME		643273	4296458
	V5	Gas Pump #5	VOLUME		643276	4296453
	S1	Gasoline Tank Vent	POINT		643280	4296477
	LINE1	Fiddymnt Rd E 0.25 mile...	LINE		643298.36	4296491.13
	LINE2	Fiddymnt Rd SW 0.25 mi	LINE		643298.36	4296491.13
▶	TRUCK1	Truck Idle Point Source 1...	POINT		643290.	4296447.

Notes:

Sources "Line1, Line2" represent roadway segments 1 and 2. Source "Truck1" represents truck idle emissions

Figure 3  
Screenshot of HARP2 Model Showing Emissions from  
Cars and Fuel Delivery Trucks

Emission Inventory								
Add	Import	Export	Delete All	Options	Filter:	All	All	All
SrcID	StkID	ProID	PolID	PolAbbrev	Multiplier	Annual Ems (lbs/yr)	Max Hr Ems (lbs/hr)	
V1	0	0	71432	Benzene	1	0.644	7.35E-05	
V2	0	0	71432	Benzene	1	0.644	7.35E-05	
V3	0	0	71432	Benzene	1	0.644	7.35E-05	
V4	0	0	71432	Benzene	1	0.644	7.35E-05	
V5	0	0	71432	Benzene	1	0.644	7.35E-05	
LINE1	0	0	106990	1,3-Butadiene	1	0.675	7.71E-05	
LINE1	0	0	71432	Benzene	1	6.825	0.000779	
LINE1	0	0	50000	Fomaldehyde	1	1.94	0.000221	
LINE1	0	0	75070	Acetaldehyde	1	0.418	4.77E-05	
LINE2	0	0	106990	1,3-Butadiene	1	0.675	7.71E-05	
LINE2	0	0	50000	Fomaldehyde	1	1.94	0.000221	
LINE2	0	0	75070	Acetaldehyde	1	0.418	4.77E-05	
LINE2	0	0	9901	DieselExhPM	1	0.0047	0.001	
S1	0	0	71432	Benzene	1	0.454	5.18E-05	
▶ LINE2	0	0	71432	Benzene	1	6.826	0.000779	
TRUCK1	0	0	9901	DieselExhPM	1	2.2E-05	0.001	

Notes:

Annual emission rates (lbs/yr) for sources Line1, Line2 and Truck1 are from Tables 1 and 2. Hourly emission rates are equal to annual emission rated divided by 8,760 (number of hours in 1 year).

Figure 4

Revised Risk Contour

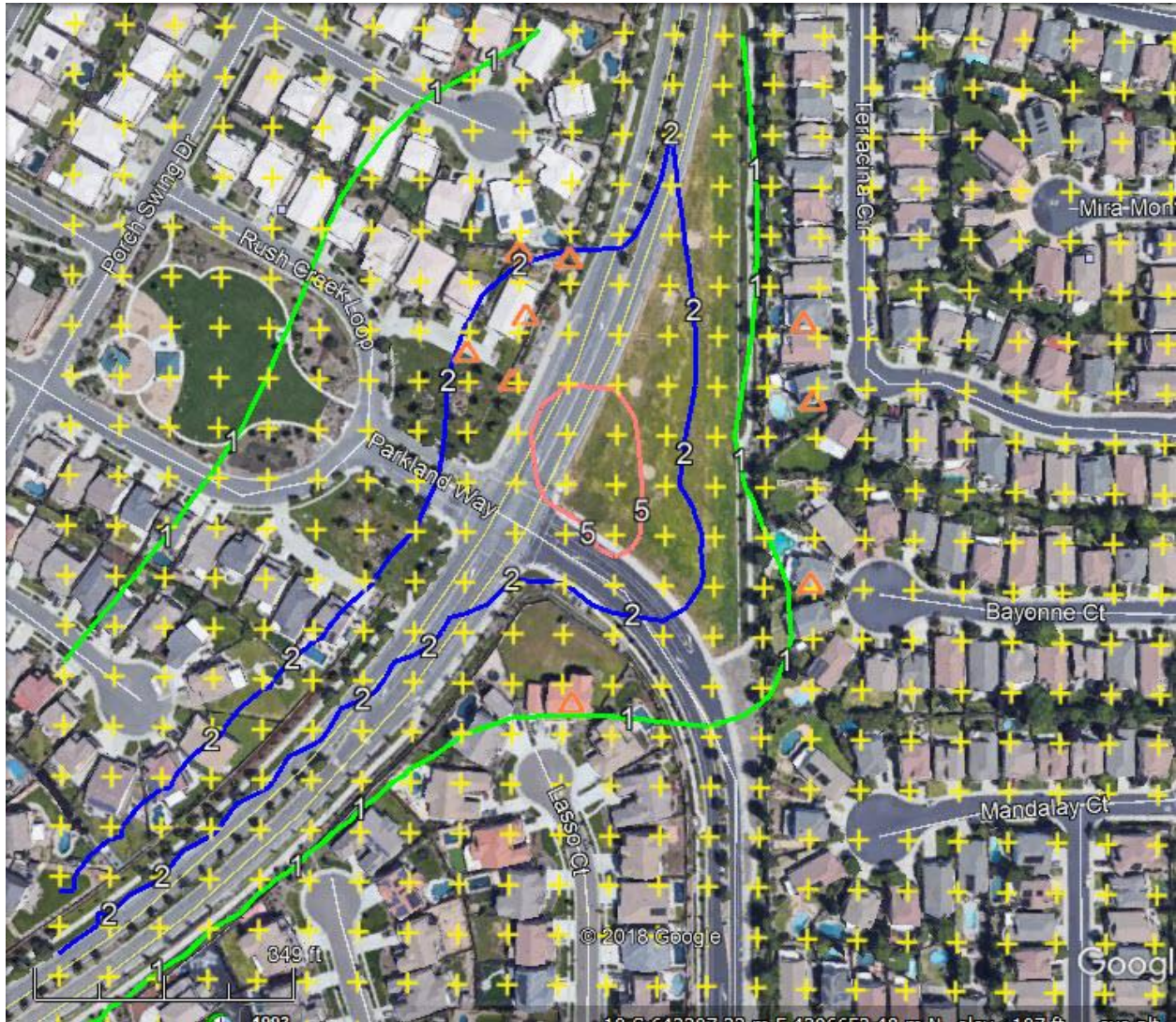


Figure 5

## Maximum Residential Cancer Risk

View Risk Results							
Cancer	Chronic	8-hour	Acute				
Load File	Risk Views	Options	Export				
REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	
610	CARTGRID	GRD1	643240	4296640	8.5200e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
611	CARTGRID	GRD1	643260	4296640	9.2078e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
612	CARTGRID	GRD1	643280	4296640	1.0755e-06	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
613	CARTGRID	GRD1	643300	4296640	1.5686e-06	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
614	CARTGRID	GRD1	643320	4296640	9.4943e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
615	CARTGRID	GRD1	643340	4296640	7.1100e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
616	CARTGRID	GRD1	643360	4296640	5.6703e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
617	CARTGRID	GRD1	643380	4296640	4.5764e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
618	CARTGRID	GRD1	643400	4296640	3.7407e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
619	CARTGRID	GRD1	643420	4296640	3.1327e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
620	CARTGRID	GRD1	643440	4296640	2.6782e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
621	CARTGRID	GRD1	643460	4296640	2.3251e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
622	CARTGRID	GRD1	643480	4296640	2.0617e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
623	CARTGRID	GRD1	643500	4296640	1.8548e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
624	CARTGRID	GRD1	643520	4296640	1.6822e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
625	CARTGRID	GRD1	643540	4296640	1.5357e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
626	SENSITIV	Residenc	643242.7	4296527	2.3600e-06	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
627	SENSITIV	Residenc	643358.9	4296422	7.5636e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
628	SENSITIV	Residenc	643358.5	4296495	4.9192e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
629	SENSITIV	Residenc	643354.2	4296526	5.7551e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	
630	SENSITIV	Residenc	643263.9	4296373	9.1989e-07	30YrCancerDerived_InhSoilDemMMilk_FAH16to70	

## REFERENCES

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OEHHA (2015): Guidance Manual for Preparation of Health Risk Assessments. Office of Environmental Health Hazard Assessment. Cal EPA. February 2015.