

## Final Regulation Order

### **Airborne Toxic Control Measure for Emissions of Perchloroethylene Associated with Dry Cleaning Operations and Requirements for Manufacturers and Distributors of Perchloroethylene**

APPROVED BY THE OFFICE OF ADMINISTRATIVE LAW ON DECEMBER 27, 2007

Amend section 93109, titles 17, California Code of Regulation, to read as follows:

#### **Section 93109. Airborne Toxic Control Measure (ATCM) for Emissions of Perchloroethylene from Dry Cleaning and Water-Repelling Operations.**

**(a) Purpose.**

The purpose of this control measure is to phase-out the use of perchloroethylene (Perc) from dry cleaning and water-repelling operations. Eliminating these emissions will further protect the public health, especially for Californians who live or work near dry cleaning and water-repelling facilities.

**(b) Applicability.**

This section applies to any person who sells or distributes Perc to California dry cleaners or who sells, distributes, installs, owns, or operates dry cleaning equipment in California that uses any solvent that contains Perc.

**(c) Severability.**

Each part of this section is deemed severable, and in the event that part of this section is held to be invalid, the remainder of this section shall continue in full force and effect.

**(d) Definitions.** The definitions in Health and Safety Code division 26, part 1, chapter 2, commencing with section 39010, shall apply, with the following additions:

- (1) *"Add-on secondary control machine"* means a closed-loop machine with a secondary control system that is designed or offered as a separate retrofit system for use on multiple machine makes and models.
- (2) *"Adsorptive cartridge filter"* means a replaceable cartridge filter that contains diatomaceous earth or activated clay as the filter medium.

- (3) *"Carbon adsorber"* means an air cleaning device that consists of an inlet for exhaust gases from a dry cleaning machine; activated carbon in the form of a fixed bed, cartridge, or canister, as an adsorbent; an outlet for exhaust gases; and a system to regenerate or reclaim saturated adsorbent.
- (4) *"Cartridge filter"* means a replaceable cartridge filter that contains one of the following as the filter medium: paper, activated carbon, or paper and activated carbon. A cartridge filter contains no diatomaceous earth or activated clay. Cartridge filters include, but are not limited to: standard filters, split filters, "jumbo" filters, and all carbon polishing filters.
- (5) *"Closed-loop machine"* means dry cleaning equipment in which washing, extraction, and drying are all performed in the same single unit (also known as dry-to-dry) and which recirculates Perc-laden vapor through a primary control system with or without a secondary control system with no exhaust to the atmosphere during the drying cycle. A closed-loop machine may allow for venting to the ambient air through a fugitive control system after the drying cycle is complete and only while the machine door is open. A closed-loop machine includes a primary control machine, an add-on secondary control machine, or an integral secondary control machine.
- (6) *"Co-residential"* means sharing a common wall, floor, or ceiling with a residence or located within the same building.
- (7) *"Contact information"* means name, mailing address, facility location, phone number, and if applicable, email address and fax number.
- (8) *"Converted machine"* means an existing vented machine that has been modified to be a closed-loop machine by eliminating the aeration step, installing a primary control system, and providing for recirculation of the Perc-laden vapor with no exhaust to the atmosphere or workroom during the drying cycle. A converted machine may allow for venting to the ambient air through a fugitive control system after the drying cycle is complete and only while the machine door is open.
- (9) *"Cool-down"* means the portion of the drying cycle that begins when the heating mechanism deactivates and the refrigerated condenser continues to reduce the temperature of the air recirculating through the drum to reduce the concentration of Perc in the drum.
- (10) *"Desorption"* means regeneration of an activated carbon bed, or any other type of vapor adsorber by removal of the adsorbed solvent using hot air, steam, or other means.

- (11) *"Dip tank operations"* means the immersion of materials in a solution that contains Perc, for purposes other than dry cleaning, in a tank or container that is separate from the dry cleaning equipment.
- (12) *"District"* means an air pollution control or air quality management district as defined in Health and Safety Code section 39025.
- (13) *"Drum"* means the rotating cylinder or wheel of the dry cleaning machine that holds the materials being cleaned.
- (14) *"Dry cleaning"* means the process used to remove soil, greases, paints, and other unwanted substances from materials with Perc.
- (15) *"Dry cleaning equipment"* means any machine, device, or apparatus that uses Perc to dry clean materials or to remove residual solvent from previously cleaned materials. Dry cleaning equipment may include, but is not limited to a transfer machine, a vented machine, a self-service machine, a converted machine, a closed-loop machine, a reclaimer, a drying cabinet, or a dip tank.
- (16) *"Dry cleaning machine"* means any dry cleaning equipment that is used to dry clean materials. A dry cleaning machine may include, but is not limited to a transfer machine, a vented machine, a self-service machine, or a closed-loop machine.
- (17) *"Dry cleaning system"* means all of the following equipment, devices, or apparatus associated with any dry cleaning process: dry cleaning equipment; filter or purification systems; waste holding, treatment, or disposal systems; solvent supply systems; dip tanks; pumps; gaskets; piping, ducting, fittings, valves, or flanges that convey Perc vapors; and control systems.
- (18) *"Drying cabinet"* means a housing in which materials previously cleaned with Perc are placed to dry and which is used only to dry materials that would otherwise be damaged by the heat and tumbling action of the drying cycle.
- (19) *"Drying cycle"* means the process used to actively remove the Perc remaining in the materials after washing and extraction. For closed-loop machines, the heated portion of the cycle is followed by cool-down and may be extended beyond cool-down by the activation of a control system. The drying cycle begins when heating coils are activated and ends when the machine ceases rotation of the drum for a converted or primary control machine, or at the end of the adsorption cycle for a secondary control machine.

- (20) *"Environmental training program"* means an initial course or a refresher course of the environmental training program for Perc dry cleaning operations that has been authorized by the Air Resources Board according to the requirements of title 17, California Code of Regulations, section 93110.
- (21) *"Existing facility"* means any facility that operated dry cleaning equipment prior to January 1, 2008.
- (22) *"Facility"* means an establishment where dry cleaning equipment is operated.
- (23) *"Fugitive control system"* means a device or apparatus that collects fugitive Perc vapors from the machine door, button and lint traps, still, or other intentional openings of the dry cleaning equipment and routes those vapors to a device that reduces the mass of Perc prior to exhaust of the vapor to the atmosphere.
- (24) *"Gallons of perchloroethylene purchased"* means the volume of Perc, in gallons, purchased for use with the dry cleaning equipment.
- (25) *"Halogenated-hydrocarbon detector"* means a portable device capable of detecting vapor concentrations of Perc of 25 ppmv or less and indicating an increasing concentration by emitting an audible signal or visual indicator that varies as the concentration changes.
- (26) *"Integral secondary control machine"* means a closed-loop machine that is designed and offered with an integral secondary control system.
- (27) *"Integral secondary control system"* means a carbon adsorber, or an equivalent device that is designed and offered as an integral part of a production package with a specific make and model of dry cleaning machine and primary control system.
- (28) *"Liquid leak"* means a leak of liquid containing Perc of more than 1 drop every 3 minutes.
- (29) *"Materials"* means wearing apparel, draperies, linens, fabrics, textiles, rugs, leather, and other goods that are dry cleaned.
- (30) *"Muck cooker"* means a device for heating Perc-laden waste material to volatilize and recover Perc.
- (31) *"New distributor"* means any person who begins the sale of Perc, directly or indirectly, to dry cleaners in California after January 1, 2008.

- (32) *"New facility"* means a facility that did not operate any dry cleaning equipment prior to January 1, 2008. Facilities that are relocated to another district shall be considered new facilities for the purposes of this control measure.
- (33) *"Perc distributor"* means any person who, directly or indirectly, sells Perc or recycled Perc to California dry cleaners.
- (34) *"Perc manufacturer"* means any person who produces and sells Perc for use in California.
- (35) *"Perchloroethylene (Perc)"* means the substance with the chemical formula 'C<sub>2</sub>Cl<sub>4</sub>', also known by the name 'tetrachloroethylene', which has been identified by the Air Resources Board and listed as a toxic air contaminant in title 17, California Code of Regulations, section 93000.
- (36) *"Pounds of materials cleaned per load"* means the total dry weight, in pounds, of the materials in each load dry cleaned at the facility, as determined by weighing each load on a scale prior to dry cleaning and recording the value.
- (37) *"Primary control machine"* means a closed loop machine used for dry cleaning that is equipped with a primary control system.
- (38) *"Primary control system"* means a refrigerated condenser, or an equivalent closed-loop vapor recovery system that reduces the concentration of Perc in the recirculating air.
- (39) *"Reasonably available"*, as it applies to a course for the environmental training program, means that the course is offered within 200 miles of the district boundaries and that all such courses have a capacity, in the aggregate, that is adequate to accommodate at least one person from each facility in the district required to certify a trained operator at that time.
- (40) *"Reclaimer"* means a machine, device, or apparatus used only to remove residual Perc from materials that have been previously cleaned in a separate piece of dry cleaning equipment.
- (41) *"Recycled Perc"* means Perc solvent that is recovered after initial use.
- (42) *"Refrigerated condenser"* means a closed-loop vapor recovery system into which Perc vapors are introduced and recovered by cooling below the dew point of the Perc.

- (43) *"Relocated facilities"* means a facility that moves from one location to another location within the boundaries of the same district.
- (44) *"Remove from service"* means remove from the facility or render the dry cleaning equipment inoperable.
- (45) *"Residence"* means any dwelling or housing which is owned, rented, or occupied by the same person for a period of 180 days or more, excluding short-term housing such as a motel or hotel room rented and occupied by the same person for a period of less than 180 days.
- (46) *"Secondary control system"* means a device or apparatus (typically a carbon adsorber), that reduces the concentration of Perc in the recirculating air at the end of the drying cycle beyond the level achievable with a refrigerated condenser alone.
- (47) *"Self-service machine"* means a dry cleaning machine that is loaded, activated, or unloaded by the customer.
- (48) *"Separator"* means any device used to recover Perc from a water-Perc mixture.
- (49) *"Solvent"* means a liquid substance other than water used in dry cleaning equipment.
- (50) *"Trained operator"* means the owner, the operator, or an employee of the facility, who holds a record of completion for the initial course of an environmental training program and maintains her/his status by successfully completing the refresher courses as required.
- (51) *"Transfer machine"* means a combination of dry cleaning equipment in which washing and extraction are performed in one unit and drying is performed in a separate unit.
- (52) *"Vapor adsorber"* means a bed of activated carbon or other adsorbent into which Perc vapors are introduced and trapped for subsequent desorption.
- (53) *"Vapor leak"* means an emission of Perc vapor from unintended openings in the dry cleaning system, as indicated by a rapid audible signal or visual signal from a halogenated-hydrocarbon detector or a concentration of Perc exceeding 50 ppmv as Perc as indicated by a portable analyzer.
- (54) *"Vented machine"* means dry cleaning equipment in which washing, extraction, and drying are all performed in the same single unit and in which fresh air is introduced into the drum in the last step of the drying

cycle and exhausted to the atmosphere, either directly or through a control device.

- (55) *"Wastewater treatment unit"* means a device that treats Perc-contaminated wastewater through the addition of thermal or chemical energy, or through physical action, such as carbon or another type of adsorbent filtration system.
- (56) *"Water-repelling operations"* means the treatment of materials with a Perc-containing solution for the purpose of making the material water resistant or water-repelling.
- (57) *"Workday"* means any consecutive 24-hour period commencing at the same time each calendar day as defined in California Labor Code section 500(a).

**(e) Prohibitions.**

- (1) No person shall sell, offer for sale, or initiate a new lease of any Perc dry cleaning machine for use in California on or after January 1, 2008.
- (2) Transfer, vented, and self service Perc machines shall remain prohibited as they have been since November 1998.

**(f) Requirements for New Facilities.**

No person shall install or operate any Perc dry cleaning machine or engage in Perc water-repelling operations at a new facility on or after January 1, 2008.

**(g) Relocated Facilities.**

Upon approval by the district, existing facilities may relocate their Perc dry cleaning equipment for the purpose of moving from one location to another location within the boundaries of the same district.

**(h) Requirements for Existing Facilities.** The owner/operator of each existing facility shall meet the following applicable requirements as follows and as shown in Table 1.

- (1) By January 1, 2008, drying cabinets and dip tanks shall not be used for Perc dry cleaning.
- (2) By July 1, 2010, existing facilities shall remove from service all Perc converted machines.
- (3) By July 1, 2010, existing facilities shall remove from service all Perc dry

cleaning machines at co-residential locations.

- (4) By July 1, 2010, or 15 years after the date of manufacture, whichever comes later, existing facilities shall remove from service all Perc closed-loop machines including primary control, add-on secondary control, and integral secondary control machines. If the age of the machine cannot be obtained, the machine shall be removed from service by July 1, 2010.
- (5) By January 1, 2023, existing facilities shall remove from service all Perc dry cleaning machines, if not required to be removed from service earlier.

**(i) Required Good Operating Practices.** No person shall operate Perc dry cleaning equipment unless all of the following requirements are met:

- (1) *Environmental training requirements.* Each Perc facility shall have one or more trained operators.
  - (A) A trained operator shall be the owner, the operator, or another employee of the facility, who successfully completes the initial course of an environmental training program to become a trained operator. Evidence of successful completion of the initial course shall be the original record of completion issued pursuant to title 17, California Code of Regulations, Section 93110.
  - (B) The trained operator shall be on site while the dry cleaning equipment is in operation.
  - (C) Each trained operator shall successfully complete the refresher course of an environmental training program at least once every three years. Evidence of successful completion of each refresher course shall be the date of the course and the instructor's signature on the original record of completion.
  - (D) If the Perc facility has only one trained operator and the trained operator leaves the employ of the facility, the facility shall:
    - 1. Notify the district in writing within 15 days of the departure of the trained operator; and
    - 2. Obtain certification for a replacement trained operator within 3 months.
    - 3. If the district determines that the initial course of an environmental training program is not reasonably available, the district may extend the certification period for a



replacement trained operator until 1 month after the course is reasonably available.

- (2) *Operation and maintenance requirements.* The trained operator shall operate and maintain all components of the Perc dry cleaning system in accordance with the requirements of this section and the conditions specified in the facility's operating permit. For operations not specifically addressed, the components shall be operated and maintained in accordance with the manufacturer's recommendations.
- (A) The district shall provide an operation and maintenance checklist to the Perc facility. Each operation and maintenance function and the date performed shall be recorded on the checklist. The operation and maintenance checklist shall include, at a minimum, the following requirements:
1. Refrigerated condensers shall be operated to ensure that exhaust gases are recirculated until the air-vapor stream temperature on the outlet side of the refrigerated condenser, downstream of any bypass, is less than or equal to 45°F (7.2°C).
    - i. Refrigerated condensers shall have a graduated or digital thermometer with a minimum range from 0°F (-18°C) to 150°F (66°C), which measures the temperature of the outlet vapor stream, downstream of any bypass of the condenser, and is easily visible to the operator.
  2. Vapor adsorbers used as a primary control system or a secondary control system shall be operated to ensure that exhaust gases are recirculated at the temperature specified by the district, based on the manufacturer's recommendations for optimum adsorption. These vapor adsorbers shall be desorbed according to the conditions specified by the district in the facility's operating permit, including a requirement that no Perc vapors shall be routed to the atmosphere during routine operation or desorption.
  3. Cartridge filters and adsorptive cartridge filters shall be handled using one of the following methods:
    - a. Drained in the filter housing, before disposal, for no less than: 24 hours for cartridge filters and 48 hours for adsorptive cartridge filters. If the filters are then transferred to a separate device to further reduce the

volume of Perc, this treatment shall be done in a system that routes any vapor to a primary control system, with no exhaust to the atmosphere or workroom; or

- b. Dried, stripped, sparged, or otherwise treated, within the sealed filter housing, to reduce the volume of Perc contained in the filter.
4. A still, and any muck cooker, shall not exceed 75 percent of its capacity, or an alternative level recommended by the manufacturer. A still, and any muck cooker, shall cool to 100°F (38°C) or less before emptying or cleaning.
  5. Button and lint traps shall be cleaned and inspected for damage each workday and the lint placed in a tightly sealed container.
  6. The facility owner/operator shall keep on site a spare set of gaskets for the loading door, still, lint trap, button trap, and water separator.
  7. The facility owner/operator shall keep on site a spare lint filter.
  8. All parts of the dry cleaning system where Perc may be exposed to the atmosphere or workroom shall be kept closed at all times except when access is required for proper operation and maintenance.
  9. Wastewater treatment units shall be operated to ensure that no liquid Perc or visible emulsion is allowed to vaporize.
  10. Carbon adsorbers in secondary control machines must be stripped or desorbed in accordance with manufacturer's instructions or at least weekly, whichever is more frequent.
- (3) *Leak check and repair requirements.* The trained operator shall inspect the Perc dry cleaning system for vapor leaks. The district shall provide a leak inspection checklist to the Perc facility. The trained operator shall record the status of each component on the checklist.
- (A) *Weekly Leak Checks.* The Perc dry cleaning system shall be inspected at least once per week for both liquid leaks and vapor leaks, using one of the following techniques:

1. A halogenated-hydrocarbon detector; or
  2. A portable gas analyzer or an alternative method approved by the district.
- (B) *Annual Leak Checks.* The Perc dry cleaning system shall be inspected at least once per calendar year for liquid and vapor leaks using a portable detector which gives quantitative results with less than ten (10) percent uncertainty at 50 ppmv of Perc. Upon request, a district may approve an annual leak check extension of 12 months or less.
- (C) Any liquid leak or vapor leak that has been detected by the operator shall be noted on the checklist and repaired according to the requirements of this subsection. If the leak is not repaired at the time of detection, the leaking component shall be physically marked or tagged in a manner that is readily observable by a district inspector.
- (D) Any liquid leak or vapor leak detected by the district, which has not been so noted on the checklist and marked on the leaking component of the dry cleaning system, shall constitute a violation of this section. For enforcement purposes, the district shall identify the presence of a vapor leak by determining the concentration of Perc with a portable analyzer according to ARB Test Method 21 (title 17, California Code of Regulations, section 94124).
- (E) Any liquid leak or vapor leak shall be repaired immediately upon detection. For the purposes of this section a business day shall mean Monday through Friday, except holidays, as provided in Government Code of Regulation section 6700 and following.
1. If repair parts are not available at the facility, the parts shall be ordered within the next business day of detecting such a leak. Such repair parts shall be installed within two business days after receipt. A facility with a leak that has not been repaired by the end of the 7<sup>th</sup> business day after detection shall not operate the dry cleaning machine, until the leak is repaired, without a leak-repair extension from the district.
  2. A district may grant a leak-repair extension to a facility, for a single period of 30 days or less, if the district makes the following findings:
    - a. The delay in repairing the leak could not have been avoided by action on the part of the facility;

- b. The facility used reasonable preventive measures and acted promptly to initiate the repair;
- c. The leak would not significantly increase exposure to Perc near the facility; and
- d. The facility is in compliance with all other requirements of this section and has a history of compliance

**(j) Recordkeeping Requirements.**

- (1) The following records shall be retained by all Perc facilities for at least 5 years:
  - (A) For each dry cleaning machine, a log showing the date and the pounds of materials cleaned per load;
  - (B) Purchase and delivery receipts for the dry cleaning solvent indicating the volume in gallons;
  - (C) For add-on or integral secondary control machine operations: the start time and finish time of each regeneration; and the temperature of chilled air on the outlet side of the refrigerated condenser;
  - (D) The operation and maintenance checklists required by subsection (i)(2)(A) and the completed leak inspection checklists required by subsection (i)(3); and
  - (E) For liquid leaks or vapor leaks that were not repaired at the time of detection, a record of the leaking component(s) of the dry cleaning system awaiting repair and the action(s) taken to complete the repair. The record shall include copies of purchase orders or other written records showing when the repair parts were ordered and/or service was requested.
- (2) The manufacturer's operating manual for all components of the dry cleaning system shall be retained for the life of the equipment.
- (3) The original record of completion of the environmental training program for each trained operator shall be retained during the employment of that person. A copy of the record of completion shall be retained for an additional period of two years beyond the separation of that person from employment at the facility.

- (4) All records, or copies thereof, shall be maintained in English and shall be accessible at the facility at all times.

**(k) Reporting Requirements.**

- (1) The owner or operator of each Perc facility shall prepare an annual report which covers the period of January 1 through December 31 of each year. The facility owner or operator shall furnish this annual report to the district by the date specified by the district. The annual report shall include the following information:
  - (A) A copy of the record of completion of the environmental training program for each trained operator;
  - (B) The total of the pounds of materials cleaned;
  - (C) The gallons of solvent purchased in the reporting period;
  - (D) The make, model, serial number, and date of manufacture of the dry cleaning machine;
- (2) A district may exempt a source from subsection (k)(1) if the district maintains current equivalent information on the facility.

**(l) Water-repelling Operations.**

No person shall perform Perc water-repelling operations unless all materials are treated in a converted, primary control, add-on secondary control, or integral secondary control machine. Persons conducting water-repelling operations shall comply with the prohibitions and requirements in subsections (e), (f), (g), and (h).

NOTE: Authority cited: Sections 39600, 39601, 39650, 39655, 39656, 39658, 39659, 39665 and 39666, Health and Safety Code; Sections 7412 and 7416, Title 42, United States Code. Reference: Sections 39650, 39655, 39656, 39658, 39659, 39666 and 39674, Health and Safety Code; Sections 7412 and 7414, Title 42, United States Code; and Sections 63.14, 63.99, 63.320, 63.321, 63.322, 63.323 and 63.324, Title 40, Code of Federal Regulation.

**Table 1. Summary of Perc Equipment Compliance Times for Existing Facilities**

<b>FACILITY OR EQUIPMENT TYPE</b>	<b>DATE OF COMPLIANCE<sup>1</sup></b>
Drying Cabinet, or Dip Tank	January 1, 2008
Converted Machine	July 1, 2010
Dry Cleaning Machines at Co-residential Facility	July 1, 2010
Closed-loop Machines: Primary Control Machine; Add-on Secondary Control Machine; or Integral Secondary Control Machine	July 1, 2010 or 15 years after the date of manufacture, whichever comes later. July 1, 2010 if age of machine cannot be determined.
All Perc Dry Cleaning Machines	January 1, 2023

1. Final date(s) by which equipment shall be removed from service or use.

## **Section 93109.1. Requirements for Perc Manufacturers.**

### **(a) Recordkeeping Requirement.**

Perc manufacturers shall keep monthly sales records (with invoices) of the gallons of Perc sold for use in dry cleaning in California. These records shall be retained for at least 5 years and shall be made available to ARB or the district upon request.

### **(b) Reporting Requirement.**

By January 1, 2008, Perc manufacturers shall report to ARB contact information for all their distributors who sell Perc for use in dry cleaning in California. If there are changes to their list of distributors, Perc manufacturers shall report the change(s) to ARB within 30 calendar days after the change has occurred.

### **(c) The provision of title 17, California Code of Regulation, section 93109, paragraphs (a), (b), (c), and (d) shall apply to this section.**

NOTE: Authority cited: Sections 39600, 39601 and 41998, Health and Safety Code.  
Reference: Sections 41998 and 42402.4, Health and Safety Code.

## **Section 93109.2. Requirements for Perc Distributors.**

### **(a) Recordkeeping Requirements.**

- (1) The following records shall be retained for at least 5 years and shall be made available to the ARB or the district upon request.
  - (A) For each dry cleaning facility, Perc distributors shall keep monthly sales records (with invoices) of the gallons of Perc and recycled Perc sold for use in dry cleaning in California.
  - (B) Perc distributors shall keep monthly purchase records (with invoices) of the gallons of Perc purchased for use in dry cleaning in California.
  - (C) Perc distributors shall keep contact information for each California dry cleaner that purchased Perc and recycled Perc.
  - (D) Perc distributors shall keep contact information for all their distributors who sell Perc and recycled Perc in California.

### **(b) Reporting Requirements.**

- (1) By January 1, 2008, Perc distributors shall report to ARB their contact information and, if applicable, the contact information for all their distributors who sell Perc and recycled Perc in California.
  - (2) Perc distributors shall report to ARB any change(s) in their contact information reported under (b)(1) above within 30 calendar days.
  - (3) By January 31 of each year, Perc distributors shall report to ARB the annual gallons of Perc and recycled Perc sold to California dry cleaners from January 1 through December 31 of the previous year.
- (c)** No later than 30 days after the issuance of an invoice from ARB, Perc distributors shall pay fees, based on the fee invoice schedule shown in Table 2.
- (d)** The provision of title 17, California Code of Regulation, section 93109, paragraphs (a), (b), (c), and (d) shall apply to this section.

NOTE: Authority cited: Sections 39600, 39601 and 41998, Health and Safety Code.  
Reference: Sections 41998 and 42402.4, Health and Safety Code.



**Table 2. Perc Fee Invoice Schedule**

<b>Year</b>	<b>Perc Fee per Gallon Sold (in U.S. Dollars)</b>	<b>Invoice Cycle</b>	<b>Approximate Invoice Date</b>
2004	\$3.00	August 16, 2004 <i>through</i> December 31, 2004	January 2005
2005	\$4.00	January 1, 2005 <i>through</i> June 30, 2005 July 1, 2005 <i>through</i> December 31, 2005	July 2005 January 2006
2006	\$5.00	January 1, 2006 <i>through</i> December 31, 2006	January 2007
2007	\$6.00	January 1, 2007 <i>through</i> December 31, 2007	February 2008
2008	\$7.00	January 1, 2008 <i>through</i> December 31, 2008	February 2009
2009	\$8.00	January 1, 2009 <i>through</i> December 31, 2009	February 2010
2010	\$9.00	January 1, 2010 <i>through</i> December 31, 2010	February 2011
2011	\$10.00	January 1, 2011 <i>through</i> December 31, 2011	February 2012
2012	\$11.00	January 1, 2012 <i>through</i> December 31, 2012	February 2013
2013	\$12.00	January 1, 2013 <i>through</i> December 31, 2013	February 2014
2014-2022	\$12.00	January 1, 2014 <i>through</i> December 31, 2014, and each subsequent calendar year <i>through</i> 2022	February 2015 and each February thereafter <i>through</i> February 2023