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Project Title:	Commercial and Industrial Air Compressors
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Document Title:	Proposed Express Terms
Description:	Proposed regulations for commercial and industrial air compressors.
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Proposed Regulatory Language

California Code of Regulations
Title 20. Public Utilities and Energy
Division 2. State Energy Resources Conservation and Development Commission
Chapter 4. Energy Conservation
Article 4. Appliance Efficiency Regulations
Sections 1601 - 1609
As related to commercial and industrial air compressors

November 16, 2018

The proposed new language appears as underline (example) and proposed deletions appear as strikeout (~~example~~). Existing language appears as plain text. Three dots or "…" represents the substance of the regulations that exists between the proposed language and current language.

Language shown in italics (*example*) is language proposed by the Energy Commission related to portable air conditioners, docket number 18-AAER-04, and published with OAL on October 12, 2018, file number Z-2018-1002-03.

Section 1601. Scope.

This Article applies to the following types of new appliances, if they are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles, or other mobile equipment. Unless otherwise specified, each provision applies only to units manufactured on or after the effective date of the provision.

NOTE: For the applicability of these regulations to appliances installed in new building construction, see sections 110.0 and 110.1 of part 6 of Title 24 of the California Code of Regulations.

…[skipping (a) through (r)]

(s) Electric motors and compressors, which are:

(1) electric motors, excluding definite purpose motors, special purpose motors, and motors exempted by the U.S. Department of Energy under 42 U.S.C. section 6313(b); or

(2) state-regulated compressors~~,~~ as defined in Section 1602 of this Article. ~~which are federally regulated commercial and industrial air compressors.~~

…[skipping (t) through end of Section 1601]

Note Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c), and 25960, Public Resources Code; and sections 16, 26, and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c), 25402.5.4, and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

Section 1602. Definitions.

(a) General

...[skipping "In this Article..." through "Color rendering index (CRI)"]

"Commercial and industrial equipment" means an article of equipment, regardless of whether it is in fact distributed in commerce for industrial or commercial use, of a type which:

(1) In operation consumes, or is designed to consume energy;

(2) To any significant extent, is distributed in commerce for industrial or commercial use; and

(3) Is not a consumer product, as defined in section 1602(a).

...[skipping "Compact Fluorescent lamp (CFL)" through (r)]

(s) Electric Motors and Compressors.

...[skipping "Accreditation" through "Air compressor"]

"Air-cooled compressor" means a compressor that utilizes air to cool both the compressed air and, if present, any auxiliary substance used to facilitate compression, and that is not a liquid-cooled compressor.

...[skipping "Air-over electric motor" through "Alternative efficiency determination method"]

"Alternative efficiency determination method" or AEDM, means, with respect to a state-regulated compressor, a method of calculating the package isentropic efficiency, package specific power, pressure ratio at full-load operating pressure, full-load actual volume flow rate, or full-load operating pressure.

"Ancillary equipment" means any equipment ~~distributed in commerce~~ sold or offered for sale in California with an air compressor but that is not a bare compressor, driver, or mechanical equipment. Ancillary equipment is considered to be part of a given air compressor, regardless of whether the ancillary equipment is physically attached to the bare compressor, driver, or mechanical equipment at the time when the air compressor is ~~distributed in commerce~~ sold or offered for sale in California.

…[skipping "Auxiliary substance" through "Bare compressor"]

~~"Basic model" of a federally regulated compressor means all units of a class of compressors manufactured by one manufacturer, having the same primary energy source, the same compressor motor nominal horsepower, and essentially identical electrical, physical, and functional (or pneumatic) characteristics that affect energy consumption and energy efficiency.~~

…[skipping "Basic model" of a federally regulated electric motor" through "Basic model" of a federally regulated small electric motor"]

"Basic model" of a state-regulated compressor means all units of a class of compressors manufactured by one manufacturer, having the same primary energy source, the same compressor motor nominal horsepower, and essentially identical electrical, physical, and functional (or pneumatic) characteristics that affect energy consumption and energy efficiency.

"Brushless electric motor" means a machine that converts electrical power into rotational mechanical power without use of sliding electrical contacts.

…[skipping "Certification program" through "Compressor" means a machine]

"Compressor motor nominal horsepower" means the motor horsepower of the electric motor, as determined in accordance with the applicable procedures in 10 C.F.R. part 431 subparts B and X, with which the rated air compressor is ~~distributed in commerce~~ sold or offered for sale in California.

…[skipping "Definite purpose electric motor" through "Fire pump electric motor"]

"Fixed-speed compressor" means an air compressor that is not capable of adjusting the speed of the driver continuously over the driver operating speed range in response to incremental changes in the required compressor flow rate.

…[skipping "Full-load actual volume flow rate" through "IEC Design N motor"]

"Liquid-cooled compressor" means a compressor that utilizes liquid coolant provided by an external system to cool both the compressed air and, if present, any auxiliary substance used to facilitate compression.

"Liquid-ring compressor" means a compressor that has an impeller with blades that are located in a cylindrical housing and arranged eccentrically relative to the housing, where the liquid acts as a liquid ring arranged concentrically to the housing and eccentrically to the impeller, forming the compression chamber.

"Lubricated compressor" means a compressor that introduces an auxiliary substance into the compression chamber during compression.

"Maximum full-flow operating pressure" means the maximum discharge pressure at which the compressor is capable of operating, as determined in accordance with the test procedure prescribed in section 1604(s) of this Article.

...[skipping "Mechanical equipment" through "Package isentropic efficiency"]

"Package specific power" means the compressor power input at a given load point, divided by the actual volume flow rate at the same load point, as determined in accordance with the test procedure prescribed in section 1604(s) of this Article.

"Positive displacement compressor" means a compressor in which the admission and diminution of successive volumes of the gaseous medium are performed periodically by forced expansion and diminution of a closed space(s) in a working chamber(s) by means of displacement of a moving member(s) or by displacement and forced discharge of the gaseous medium into the high-pressure area.

"Pressure ratio at full-load operating pressure" means the ratio of discharge pressure to inlet pressure, determined at full-load operating pressure in accordance with the test procedures prescribed in ~~*10 C.F.R. section 431.344*~~section 1604(s) of this Article.

"Reciprocating compressor" means a positive displacement compressor in which gas admission and diminution of its successive volumes or its forced discharge are performed cyclically by straight-line alternating movements of a moving member(s) in a compression chamber(s).

...[skipping "Rotor"]

"Rotary compressor" means a positive displacement compressor in which gas admission and diminution of its successive volumes or its forced discharge are performed cyclically by rotation of one or several rotors in a compressor casing.

...[skipping "Small electric motor" through "Special purpose motor"]

"State-regulated compressor" means commercial and industrial equipment that meets all of the following criteria:

(1) is an air compressor,
(2) is a rotary compressor,
(3) is not a liquid-ring compressor,
(4) is driven by a brushless electric motor,
(5) is a lubricated compressor,

(6) has a full-load operating pressure greater than or equal to 75 pounds per square inch gauge (psig) and less than or equal to 200 psig,
(7) is not designed and tested to the requirements of The American Petroleum Institute standard 619, "Rotary-Type Positive-Displacement Compressors for Petroleum, Petrochemical, and Natural Gas Industries,"
(8) has full-load actual volume flow rate greater than or equal to 35 cubic feet per minute (cfm), or is sold or offered for sale with a compressor motor nominal horsepower greater than or equal to 10 horsepower (hp),
(9) has a full-load actual volume flow rate less than or equal to 1,250 cfm, or is sold or offered for sale with a compressor motor nominal horsepower less than or equal to 200 hp,
(10) is driven by a three-phase electric motor,
(11) is manufactured alone or as a component of another piece of equipment; and
(12) is one of the equipment classes listed in Table S-5.

...[skipping "Total power loss" through end of section 1602]

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c), and 25960, Public Resources Code; and sections 16, 26, and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c), 25402.5.4, and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

Section 1602.1 Rules of Construction - No change

Section 1603. Testing: All Appliances - No change

Section 1604. Test Methods for Specific Appliances.

...[skipping (a) through (r)]

(s) Electric Motors and Compressors.

...[skipping (1) and (2)]

(3) Compressors. The test method for state-regulated compressors is 10 C.F.R. section 431.344 (Appendix A to Subpart T of 10 C.F.R., § 431), including but not limited to provisions on alternative efficiency determination method (AEDM) and additional testing requirements concerning selection of models to be tested if an AEDM is to be applied, in 10 C.F.R. section 429.63 and 10 C.F.R. section 429.70.

...[skipping (t) through (w)]

The following documents are incorporated by reference in section 1604.

...[skipping California Energy Commission Test Methods]

FEDERAL TEST METHODS

C.F.R., Title 10, section 429.56, 429.63, and 429.70
C.F.R., Title 10, section 430.23, and 10 C.F.R. Appendixes A, B, C1, D1, D2, E, F, H, I, J1, J2, M, N, O, P, Q, R, S, T, U, V, W, X, S1, Y, Z, AA, BB, and CC of subpart B of part 430
C.F.R., Title 10, sections 431.15, 431.16, 431.17, 431.18, 431.19, 431.20, and 431.21
C.F.R., Title 10, sections 431.63 and 431.64
C.F.R., Title 10, sections 431.75 and 431.76
C.F.R., Title 10, sections 431.85 and 431.86
C.F.R., Title 10, sections 431.95 and 431.96
C.F.R., Title 10, sections 431.105 and 431.106
C.F.R., Title 10, sections 431.133 and 431.134
C.F.R., Title 10, section 431.193
C.F.R., Title 10, section 431.204(b)
C.F.R., Title 10, section 431.224
C.F.R., Title 10, sections 431.263 and 431.264
C.F.R., Title 10, sections 431.293 and 431.294
C.F.R., Title 10, sections 431.303 and 431.304
C.F.R., Title 10, sections 431.344, Appendix A to Subpart T of 10 C.F.R., § 431
C.F.R., Title 10, sections 431.443, 431.444, and 431.445
C.F.R., Title 10, section 431.464
C.F.R., Title 10, section 431 subpart G

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...[skipping United States Environmental Protection Agency (EPA) through end of section 1604]

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c), and 25960, Public Resources Code; and sections 16, 26, and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c) and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

Section 1605. Energy Performance, Energy Design, Water Performance, and Water Design Standards: In General - No change

Section 1605.1. Federal and State Standards for Federally Regulated Appliances.

...[skipping (a) through (r)]

(s) Electric Motors and Compressors.

...[skipping (1) through 6)]

(7) **Compressors.** ~~There are no standards for federally regulated compressors.~~ See section 1605.3(s) of this Article for energy efficiency standards for state-regulated compressors.

...[skipping (t) through end of section 1605.1]

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c), and 25960, Public Resources Code; and sections 16, 26, and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c), and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

Section 1605.2 State Standards for Federally Regulated Appliances.

...[skipping (a) through (r)]

(s) Electric Motors and Compressors.

...[skipping (1)]

(2) **Compressors**. ~~There are no energy efficiency standards for federally regulated compressors.~~ See section 1605.3(s) of this Article for energy efficiency standards for state-regulated compressors.

...[skipping (t) through end of section 1605.2]

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c), and 25960, Public Resources Code; and sections 16, 26, and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c), and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

Section 1605.3 State Standards for Non-Federally-Regulated Appliances.

...[skipping (a) through (r)]

(s) Electric Motors and Compressors.

...[skipping (1)]

(2) **Compressors.** ~~There are no energy efficiency standards for federally regulated compressors.~~ State-regulated compressors manufactured on or after January 1, 2022, shall meet the applicable performance values in Table S-5.

Table S-5
Standards for State-regulated Compressors

Equipment Class	Minimum Package Isentropic Efficiency†	η_{Regr} (package isentropic efficiency reference curve)	d (Percentage Loss Reduction)
Rotary, lubricated, air-cooled, fixed-speed compressor	$\eta_{Regr} + (1 - \eta_{Regr}) * \left(\frac{d}{100}\right)$	$-0.00928 * ln^2(.4719 * V_1) + 0.13911 * \ln(.4719 * V_1) + 0.27110$	-15
Rotary, lubricated, air-cooled, variable-speed compressor	$\eta_{Regr} + (1 - \eta_{Regr}) * \left(\frac{d}{100}\right)$	$-0.01549 * ln^2(.4719 * V_1) + 0.21573 * ln(.4719 * V_1) + 0.00905$	-10
Rotary, lubricated, liquid-cooled, fixed-speed compressor	$.02349 + \eta_{Regr} + (1 - \eta_{Regr}) * \left(\frac{d}{100}\right)$	$-0.00928 * ln^2(.4719 * V_1) + 0.13911 * ln(.4719 * V_1) + 0.27110$	-15
Rotary, lubricated, liquid-cooled, variable-speed compressor	$.02349 + \eta_{Regr} + (1 - \eta_{Regr}) * \left(\frac{d}{100}\right)$	$-0.01549 * ln^2(.4719 * V_1) + 0.21573 * ln(.4719 * V_1) + 0.00905$	-15

Where V_1 is the full-load actual volume flow rate of the compressor, in cubic feet per minute, as determined in accordance with the test procedure in section 1604(s).

† For "fixed-speed compressor" equipment classes, the relevant Package Isentropic Efficiency is Full-load Package Isentropic Efficiency. For "Variable-speed compressor" equipment classes, the relevant Package Isentropic Efficiency is Part-load Package Isentropic Efficiency. Both Full- and Part-Load Package Isentropic Efficiency are determined in accordance with the test procedure in section 1604(s) of this Article.

...[skipping (t) through end of section 1605.3]

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c), and 25960, Public Resources Code; and sections 16, 26, and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c) and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

Section 1606. Filing by Manufacturers; Listing of Appliances in the MAEDbS.

(a) Filing of Statements.

Each manufacturer shall electronically file with the Executive Director through the MAEDbS a statement for each appliance that is sold or offered for sale in California. The statement shall contain all of the information described in paragraphs (2) through (4) of this subsection and shall meet all of the requirements of paragraph (1) of this subsection and all other applicable requirements in this Article.

The effective dates of this section shall be the same as the effective dates shown in section 1605.1, 1605.2 or 1605.3 of this Article for appliances for which there is an energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article. For appliances with no energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article, the effective date of this section shall be one year after they are added to section 1601 of this Article, unless a different effective date is specified.

Exceptions to Section 1606(a) of this Article: Section 1606(a) of this Article is not applicable to:

1. external power supplies,

~~2. compressors,~~

~~*3. portable air conditioners (except for spot air conditioners),*~~

2~~4~~. small electric motors, or

3~~5~~. à la carte chargers meeting the EXCEPTION noted in section 1605.3(w)(2) of this Article.

...[skipping (a)(1) through (a)(2)]

(3) **Testing and Performance Information.**

(A) A statement that the appliance has been tested in accordance with all applicable requirements of sections 1603 and 1604 of this Article. If section 1604 of this Article provides more than one test method that may be used, the manufacturer shall identify which method was used.

Exception 1. to Section 1606(a)(3)(A) of this Article:

For state-regulated compressors, the manufacturer shall submit a statement that the appliance has been tested in accordance with all applicable requirements of sections 1603 and 1604 of this Article, or that the appliance has been rated according to an alternative efficiency determination method (AEDM) in accordance with all applicable requirements of section 1604(s) of this Article.

(B) The name and address and, if available, telephone number, fax number, URL (web site) address, and e-mail address of the laboratory or other institution where the testing required by sections 1603 and 1604 of this Article was performed.

(C) The applicable information listed in Table X; provided, however, that submittal of information marked with "1" is voluntary for federally regulated appliances, and that

submittal of information marked with "[2]" is voluntary for state-regulated appliances. Where there is text in the "Permissible Answers" column, the information provided must be one of the answers shown. If the text in the "Permissible Answers" column states "other (specify)," the information provided must be a specific response for the "Required Information" category (e.g., a response of "other" is not acceptable).

Exception 1. to Section 1606(a)(3)(C) of this Article:

If an appliance has an alternative test procedure pursuant to section 1603(c)(1) of this Article, or an alternative assessment method specified pursuant to section 1603(c)(2)(A) of this Article, then the statement shall include:

(1) the following information from Table X: Manufacturer's Name, Brand Name, Model Number, and Regulatory Status; and
(2) all information from Table X that is applicable to the appliance and that is produced during the alternative test procedure or the alternative assessment method; and
(3) all other energy performance information produced during the alternative test procedure or the alternative assessment method.

Exception 2. to Section 1606(a)(3)(C) of this Article:

If the Executive Director has specified that there is no test method for an appliance pursuant to section 1603(c)(2)(B) of this Article, then the statement shall include the following information from Table X: Manufacturer's Name, Brand Name, Model Number, and Regulatory Status.

EXCEPTION 3. to Section 1606(a)(3)(C) <u>of this Article</u>:

Manufacturers of state-regulated LED lamps and LED versions of state-regulated small-diameter directional lamps may certify estimated values for rated lifetime until testing per section 1604 is complete. When reporting estimated values, the certification report shall describe the prediction method, which must be generally representative of the methods specified in 10 C.F.R. Appendix BB to subpart B of part 430, "Uniform Test Method for Measuring the Input Power, Lumen Output, Lamp Efficacy, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Power Factor, Time to Failure, and Standby Mode Power of Integrated Light-Emitting Diode (LED) Lamps." Manufacturers shall maintain records of the development of all estimated values and any associated initial test data. Manufacturers shall update the certification in the MAEDbS upon completion of the required test procedures for rated lifetime.

(D) **How Tested Data Must Be Reported.**

1. For any numerical value required by Table X that is produced by a test specified in section 1604 of this Article, the reported value shall be no higher for the value for which the consumer would prefer a high number, and no lower for the value for which the consumer would prefer a low number, than the values obtained by testing; unless

different specific instructions are specified in the test method specified in section 1604 of this Article.

2. For any numerical value required by Table X that is produced by calculation from measured numerical test results, the reported value shall be no higher for the values where the consumer would prefer a high number than the exact result of the calculation, and no lower than the exact result of the calculation where the consumer would prefer a low number, than the values obtained by calculating, unless different specific instructions are specified in the test method specified in section 1604 of this Article.

3. Manufacturers may report:

    a. numbers higher than tested values, where the consumer would, all other things being equal, prefer lower values (or is indifferent); and

    b. numbers lower than tested values, where the consumer would, all other things being equal, prefer higher values (or is indifferent).

Example: An air conditioner is tested using the appropriate test method specified in section 1604 of this Article, and the test method does not include specific instructions about the precision of reporting.

- Cooling capacity is measured as: 36,014 Btu per hour.
- For cooling capacity, consumers prefer higher values.
- The manufacturer may not report any value over 36,014 Btu per hour.
- The manufacturer chooses to report 36,000 Btu per hour.
- Electrical energy use is measured at 3,487 watts.
- For electrical energy use, consumers prefer lower values.
- The manufacturer may not report any value under 3,487 watts.
- The manufacturer chooses to report 3,500 watts.
- Using the data the manufacturer chooses to report, EER = 36,000/3,500 = 10.285714.
- For EER, consumers prefer higher values.
- The manufacturer may not report any value of EER over 10.285714 (if EER is reported with only one decimal place, the maximum value would be 10.2).
- The manufacturer chooses to report EER = 10.2 Btu per watt hour.
- If the manufacturer had chosen to report the cooling capacity as 36,014 Btu per hour, and the electrical energy use as 3,487 watts, the calculated EER would have been 36,014/3,487 = 10.328076. In this case the manufacturer could not report any value of EER over 10.328076 (if EER is reported with only one decimal place, the maximum value would be 10.3).

Table X
Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
	All Appliances	*Manufacturer's Name	
		* Brand Name	
		* Model Number	
		Date model to be displayed	
		Regulatory Status	Federally regulated consumer product, federally regulated commercial and industrial equipment, non-federally regulated

...[skipping A through S-Electric Motors]

	Appliance	*Required Information*	*Permissible Answers*
S	State-regulated Compressors	Isentropic Efficiency	
		Equipment Class	Rotary, lubricated, air-cooled, fixed-speed compressor; Rotary, lubricated, air-cooled, variable-speed compressor; Rotary lubricated, liquid-cooled, fixed-speed compressor; Rotary, lubricated, liquid-cooled, variable-speed compressor
		Full-load package isentropic efficiency (fixed-speed compressor only) or part-load	

		package isentropic efficiency (variable-speed compressor only)	
		Full-load actual volume flow rate (CFM)	
		Compressor motor nominal horsepower (HP)	
		Full-load operating pressure (psig)	
		Maximum full-flow operating pressure (psig)	
		Pressure ratio at full-load operating pressure	

...[skipping T through end of Table X]

(4) **Declaration.**

(A) Each statement shall include a declaration, executed under penalty of perjury of the laws of California, that

1. all the information provided in the statement is true, complete, accurate, and in compliance with all applicable provisions of this Article;

2. the requirements of section 1606(g) of this Article have been and are being complied with;

3. for appliances for which there is an energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article, that the appliance complies with the applicable standards;

4. the appliance was tested under the applicable test method specified in section 1604 of this Article, and, for the following appliances, was tested as follows:

   a. for other self-contained commercial refrigerators, refrigerator-freezers, and freezers with doors that are pass-through and roll-through refrigerators and freezers, that the back (loading) doors remained closed throughout the test;

   b. for all refrigerators, refrigerator-freezers, and freezers were tested using alternating current electricity only;

c. for all split system central air conditioners and compressor-containing units, these models were tested with the combination of compressor-containing and non-compressor containing unit specified in 10 C.F.R. section 429.16(b)(2);

d. for all gas-fired air conditioners and gas-fired heat pumps, all appliances were tested to ANSI Z21.40.4-1996 as modified by CEC, Efficiency Calculation method for Gas-Fired Heat Pumps as a New Compliance Option (1996);

e. for evaporative coolers, all appliances were tested to the applicable test method referenced in Table D-3 with the modifications appearing in Table D-3;

f. for whole house fans, all appliances were tested to HVI-916, and if equipped with louvers were tested with manufacturer-provided louvers in place;

g. for battery charger systems for which certification is based on testing of representative battery charger system models, the models tested as representative are those known or expected to have the poorest performance characteristics such that the data generated meets the requirements of section 1606(a)(3)(D) of this Article for all associated models; and

h. for kitchen faucets that utilize an optional and temporary higher flow rate than 1.8 gpm, the higher flow rate has been tested utilizing the test procedure identified for kitchen faucets in section 1604(h) at 60 psi and verified to have a flow rate less than or equal to 2.2 gpm.

i. for state-regulated compressors that are rated using an alternative efficiency determination method (AEDM) in lieu of testing, that the represented value of efficiency, consumption, or other non-energy metrics for the basic model was determined through the alternative efficiency determination method specified in section 1604(s).

...[skipping remainder of section 1606]

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c), and 25960, Public Resources Code; and sections 16, 26, and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c), 25402.5.4, and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

Section 1607. Marking of Appliances. No change

Section 1608. Compliance, Enforcement, and General Administrative Matters.

(a) General Requirements for the Sale or Installation of All Appliances.

Any unit of any appliance within the scope of section 1601 of this Article may be sold or offered for sale in California only if:

(1) the appliance appears in the most recent MAEDbS established pursuant to section 1606(c) of this Article, unless the only reason for the appliance's absence from the MAEDbS is its failure to comply with an applicable standard in section 1605.1 of this Article;

(2) the manufacturer has:

(A) tested the appliance as required by sections 1603 and 1604 of this Article;

(B) marked the unit as required by section 1607 of this Article;

(C) for any appliance for which there is an applicable standard in section 1605.2 or 1605.3 of this Article, certified under section 1606(a) of this Article that the appliance complies with the standard;

(3) the unit has the same components, design characteristics, and all other features that affect energy or water consumption or energy or water efficiency, as applicable, as the units that were tested under sections 1603 and 1604 of this Article and for which information was submitted under section 1606(a) of this Article; and

(4) for any appliance for which there is an applicable standard in section 1605.2 or 1605.3 of this Article, the unit complies with the standard.

Exceptions to Sections 1608(a)(1) and 1608(a)(2)(C) of this Article. Sections 1608(a)(1) and 1608(a)(2)(C) of this Article are not applicable to:

1. external power supplies,
~~2. compressors,~~
~~*3. portable air conditioners (except for spot air conditioners),*~~
2. small electric motors, or
3. à la carte chargers meeting the EXCEPTION noted in section 1605.3(w)(2) of this Article.

...[skipping (b) through end of section 1608]

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), and 25960, Public Resources Code. Reference: Sections 25216.5(d), 25402(a)-(c), and 25960, Public Resources Code.

Section 1609. Administrative Civil Penalties - No change