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Compliance Issues Arising from Inclusion of Air Compressors with Amendments

Additional submitted attachment is included below.



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July 2, 2018

The Honorable J. Andrew McAllister, PhD Commissioner California Energy Commission 1516 Ninth Street, MS-34 Sacramento, CA 95814

Via Electronic Mail Care of Donna.Parrow@energy.ca.gov. and Website Filing with the Commission

Re: Problems with Including Air Compressors with Amendments Title 20,

Sections 1601-1609, California Code of Regulations Docket No. 2018-

AAER-10

Dear Commissioner McAllister:

Together with Sómach, Simmons & Dunn of Sacramento, California, this firm represents the Atlas Copco family of companies ("Atlas Copco"), including Atlas Copco Airpower, Quincy Compressor and Chicago Pneumatic Tool. Atlas Copco manufactures, modifies and sells over 800 models of air compressors throughout the United States, many of which are sold to commercial and industrial customers in the State of California.

According to the July 11, 2018 Consent Calendar, the California Energy Commission (the "Commission") is preparing to adopt significant proposed changes concerning air compressors to 20 California Code of Regulations (C.C.R.) Sections 1601-1609, as set forth in 2018-AAER-10 ("Proposed Rule" or "Proposal"). Atlas Copco respectfully objects to such adoption because of the apparently unintended, but likely substantial adverse effects on Atlas Copco and other manufacturers, as well as the likely creation of significant marketplace confusion caused by inconsistencies with related U.S. Department of Energy ("DOE") rules ("federal rules").

Although the Commission's proposed changes were apparently intended to be consistent with federal test standards, contrary to such assertions, the Proposed Rule seems to have omitted significant parts of the federal rules, portions of which are critical for effectuating a workable California program for our industry, the marketplace, and energy efficiency.



In brief, our major concerns fall into the following categories:

- I. Omission of Critical Portions of the Federal Rule and Inclusion of Conflicting Provisions Need to be Addressed for Proper Application of the Testing Requirements. The Proposed Rule's effort to include the federal test standard failed to include critical portions of the related federal regulations needed to ensure that the test rule works properly and to avoid great increases in compliance costs over the federal testing standard. Such problems will be seriously compounded by inconsistent and potentially conflicting language contained elsewhere in the Proposed Rule. The net result of such omissions and/or conflicts will be the imposition of required testing of every model a company offers for sale in California, even though the federal test rule does not require such testing because it provides several compliance alternatives plainly omitted from the Proposed Rule. That change, if read literally, could greatly increase compliance costs over the federal test rule, perhaps by several times the likely federal cost. The Obama Department of Energy (DOE) made clear that the federal compliance alternatives, missing from the California Proposal, were critical in its decision that the federal test standard was economically justified. Without these compliance alternatives, the substantial compliance costs of the California proposal cannot be justified based on the federal test standard. Moreover, the testing of every model would do virtually nothing to improve the accuracy of the information about energy efficiency that would be reported.
- Failure to Coordinate Development of the Proposed Rule with II. Critically Related Proceedings to Develop Air Compressor Efficiency Standards. The Commission has not coordinated the air compressor requirements of this Proposal with the parallel proceeding it has underway to develop a substantive energy efficiency standard for air compressors under Docket No. 2018-AAER-5. The Commission's failure to do so may create significant inconsistencies and regulatory confusion, particularly if California prevails in its pending legal challenge to force the Trump DOE to issue the Obama DOE energy efficiency rule it withdrew from publication on January 23, 2017. A decision in that case, Natural Resources Defense Council, et al., v. Perry, et al., (consolidated case), No. 18-15380, 18-15475 (9th Circuit), now pending before the U.S. Court of Appeals for the Ninth Circuit ("Court of Appeals"), is expected this calendar year, as briefing will be completed on July 16, 2018. If the Court of Appeals agrees with the district court and orders that the federal efficiency standard for air compressors must be adopted, then the current inconsistencies between the state's testing requirements and the



corresponding federal rules will be even more pronounced, thereby resulting in confusion amongst manufacturers and the marketplace, and needless testing requirements with the attendant increasing costs.

III. Deferral of Compressor Portions of This Proposal and Coordination with the Substantive Rulemaking for Compressor Efficiency Is Warranted. Atlas Copco respectfully but strongly recommends that the Commission defer action on the portions of the rule governing air compressors, and instead develop such rule in tandem with the substantive air compressor efficiency standard it is preparing to propose in Docket No. 2018-AAER-5. That coordination will better serve energy efficiency, industry compliance, and more reliably and accurately inform California purchasers about the performance of air compressors being considered for purchase.

Part I explains in detail the critical omissions of federal requirements from the Commission's proposed air compressor requirements, including references to Alternative Efficiency Demonstration Methods (AEDMs), as well as critical definitions with which the Proposal's definitions conflict.

Part II provides factual background about Atlas Copco, its commitment to sustainability, and its compressor business, including the costs of energy efficiency testing, its testing efforts, as well as those of the air compressor manufacturing sector through the trade association, the Compressed Air and Gas Institute (CAGI).

Part III explains the current complicated federal regulatory situation and its impact on industry test efforts. Put simply, there is substantial confusion created by DOE's inconsistent approach to regulation, as well as by the pendency of litigation over the energy efficiency standard. (Atlas Copco is not a party to that litigation, but the State of California is one of the prevailing district court plaintiffs in the case now before the Court of Appeals.)

The Court of Appeals appears likely to make a decision this calendar year regarding the State of California's effort to compel issuance of a federal energy efficiency standard for air compressors, a decision which will materially affect both the federal and state regulation of air compressor efficiency and its testing. Consequently, Atlas Copco strongly recommends that the Commission defer action on the air compressor portions of the proposal currently scheduled for adoption on July 11, 2018, and instead combine its consideration with the Commission's work under Docket No. 2018-AAER-5 concerning the substantive air compressor efficiency standard.



I. Critical Portions of the Federal Test Rules Were Omitted in the Commission's Proposed Rule.

Air compressors are clearly intended to be covered by the Proposed Rule. Section 1601(s), page 2 of the Proposal, would be amended to add "air compressors" to the scope of equipment regulated by the Commission for energy efficiency. The addition of air compressors to section 1601 is critical because under section 1603(a), p. 105, that inclusion will trigger a variety of additional requirements, particularly requirements for testing each basic model of compressor sold in California within one year of adoption of the rule.

The Commission's Proposed Rule will be far more burdensome for the regulated industry than the federal testing standard because the Commission has omitted a number of key terms from the related federal rules, provisions addressing Alternative Efficiency Demonstration Methods (AEDMs). The Commission proposal also provides no indication that prior valid test data using the industry test method, ISO1217 can be relied upon to satisfy testing requirements, and omits critical definitional language about different classes of air compressor (e.g. reciprocating, lubricated, fixed speed) suggesting that the Commission intends to regulate many more kinds of air compressors than the federal test or proposed federal efficiency standards would regulate.

A. Omissions Related to Alternative Efficiency Demonstration Methods (AEDMs).

The Commission's Proposal has omitted key parts of the federal test rule package in ways which will substantially increase the burden of this testing. Proposed section 1604(s)(3, page 126, provides that:

- (s) Electric Motors and Compressors. . . .
- (3) Compressors. The test method for compressors is 10 C.F.R. section
- 431.344 (Appendix A to Subpart T of 10 C.F.R., § 431).

Unfortunately, the full federal test rule package, as promulgated on January 4, 2017, 82 Fed. Reg. 1052-1106, included a number of provisions omitted here, provisions which are critical for ensuring that the test rule with its associated compliance options are workable, financially feasible and not unduly burdensome within the bounds that federal law requires. While the omission was undoubtedly unintentional, the effects of such omission will be substantial and adverse to manufacturers of air compressors offered for sale in California.



From the compliance cost point of view, the most significant omission is the Proposed Rule's failure to include any reference to 10 C.F.R. § 429.70(h), which allows for Alternative Efficiency Demonstration Methods (AEDMs). In the federal DOE's notice explaining its conclusions about the test rule, it made clear that the use of AEDMs was very important to reducing the testing burden on manufacturers:

DOE concludes that the allowance of an AEDM in the place of testing sufficiently addresses the industry's concern regarding testing the limited number of low-shipments-volume compressor models that remain in scope. For these reasons, DOE concludes that the test procedures and associated representations requirements established in this final rule are not unduly burdensome.

82 Fed. Reg. 1096 (Jan. 4, 2017). The federal statute requires that DOE determine that a test standard "shall not be unduly burdensome for industry to conduct." Section 343(a)(2), Energy Policy and Conservation Act (EPCA), 42 U.S.C. § 6314(a)(2).

Atlas Copco's concern about the omission of any AEDM reference from the Commission's Proposed Rule is increased by the language found elsewhere in the Proposal concerning AEDMs. While the Commission Proposal does indeed provide for AEDMs, such provision applies to small electric motors ---- but NOT to air compressors. Thus, in Proposed Section 1604(s)(2), page 126, the Commission states that:

(2) Small Electric Motors. The test methods for small electric motors are 10 C.F.R. sections 431.443, 431.444 and 431.445, 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.

(Emphasis supplied). Under the usual rules for construing regulatory language, the omission of similar language from Section 1604(s)(3) would likely be construed as the Commission's intentional decision NOT to allow AEDMs for demonstrating air compressor compliance.

While Atlas Copco doubts that the Commission intended to impose an extra heavy burden on the air compressor manufacturing industry, the adverse financial and regulatory impacts of the Proposal's omission threaten to be very substantial, unless this omission is clearly remedied by inclusion of references to the rest of the test rule package adopted by DOE, including 10 C.F.R. §§ 429.2, (a), 429.63(a), 429.70(h) (AEDMs), 429.134(p), 431.342 (definitions), and 431.343 (materials incorporated by reference).



B. Omissions Related to Use of Prior ISO1217 Test Data to Satisfy Testing Obligations Under Section 1603(a).

The test method adopted by DOE is expressly based on ISO1217:2009 as updated in 2016. In its notice promulgating the rule, and at the hearing, DOE indicated, with some caveats, that it would allow manufacturers to rely on valid data from previous ISO1217 testing in order to meet the test and certification requirements of the rule. See 82 Fed. Reg. 1076, 1089-90, 1104 (Jan. 4, 2017)

The Commission's proposal is silent on this critical issue. The literal terms of Proposed section 1603(a) indicate that new testing would nonetheless be required for "each basic model of appliance within the scope of Section 1601 of this Article, using the applicable test method listed in section 1604 (of this Article, unless otherwise provided in subsection (c) of this section [concerning federal waivers]." Commission Proposal, page 105. This test obligation is a duplicative and costly requirement that will not result in any benefit to energy efficiency or consumer protection, but will apparently require the testing of all compressor models within one year of adoption of this rule.

C. Omissions Related to Critical Definitions of Compressor Classes Suggest That the Commission May Intend to Impose Testing Obligations on Many More Kinds of Air Compressor Than Governed By the Federal Test Standard.

The Commission's Proposal, as it currently stands, has taken some, but not all of the definitions from the federal rule, thereby creating significant confusion. Moreover, by combining the sections on electric motors with air compressors, the Commission's Proposal compounds the confusion by including definitions for both classes, while omitting a number of important compressor definitions from Proposed Section 1602(s), pages 75-79, thereby potentially broadening the scope of compressor classes subject to proposed testing. While Atlas Copco doubts that the Commission intends to broaden the testing categories in this fashion, the failure to include the full set of federal definitions may have that effect. At the very least, the omission of these terms sows needless confusion regarding required compliance procedures.

Specifically, the Commission's Proposal omits the below definitions found in 10 COFFER. § 431.342 which are critical to determining what kind of equipment is, in fact, regulated or excluded:

- Brushless electric motor
- Fixed speed compressor
- Lubricant free compressor
- Lubricated compressor



- Maximum flow operating pressure
- Mechanical equipment
- Positive displacement compressor
- Reciprocating compressor
- Rotary compressor

As previously noted, the standard approach to interpreting regulatory language suggests that if some terms are included from one section or another source, but are omitted in other sections, the omissions are intentional. The failure to either simply use 10 C.F.R. § 431.342 and its definitions, or to include all of them if they are to be restated, creates needless confusion over which classes of compressors are to be tested as apparently required by Proposed Section 1603(a).

The increased costs for testing these additional models, which the federal test standard does not require, are potentially large because there are a significant number of compressor classes excluded from the federal testing requirement. Thus, for example, while the federal test rule regulates rotary compressors, it does NOT regulate reciprocating compressors, based on definitional terms that distinguish reciprocating compressors from rotary compressors. (DOE also found, when it proposed regulation of the energy efficiency of rotary compressors, that such regulation of reciprocating compressors was economically unjustified. 81 Fed. Reg. 31680 (May 19, 2016)). Consequently, the Proposed Rule's failure to include definitional terms that exclude reciprocating compressors from regulation raises significant questions.

Additionally, the failure to distinguish between lubricated compressors and oil-free compressors misses a commercially significant distinction among air compressors, since DOE indicated that it would not impose efficiency standards on oil-free rotary compressors. The Commission's failure to distinguish between lubricating and oil-free compressors raises in the definitions raises further questions about the Commission's intent.

The Proposal's omission of these important federal definitions implies that the Commission intends to require testing of many additional kinds of compressors beyond the scope of the federal test rule and beyond the scope of the withdrawn federal air compressor efficiency standard. If so, this would be a substantial and expensive change from the federal rule, and would engender confusion within the industry and inconsistent information in the marketplace.

II. Atlas Copco Compressor Manufacturing Operations and Testing Concerns.

Atlas Copco is a large international company, incorporated in Sweden, with over 5,000 U.S. employees and fifty installations in the United States. The Atlas Copco family of



companies includes numerous locations and employees located in California. These include large operations in Costa Mesa, California, making equipment used in liquefied natural gas (LNG) transportation.

Atlas Copco AB, the Swedish parent company, has a long-standing commitment to sustainability, as evidenced by its listing for nine years among the Global 100's list of top 100 sustainable companies in the world. Improved energy efficiency is a major focus of Atlas Copco's compressor research and development, and a major way by which Atlas Copco competes for its customers.

Atlas Copco's operations include several factories in the United States which make or modify air compressors. It employs hundreds of American workers in its compressor operations.

The Atlas Copco family of companies makes and markets over 800 separate models of air compressors, models which are covered by the federal air compressor efficiency test rule. Atlas Copco makes many additional kinds of air compressors, such as reciprocating compressors, which the Obama DOE decided not to regulate because such regulation and testing was not economically justified. In order to meet the testing time line in the Commission's currently proposed rule, which makes no provision for AEDMs or use of prior valid test data, the Atlas Copco family of companies would have to resort to extensive and very expensive third-party testing for many models of compressor.

The cost of testing each compressor model has climbed from about \$1,500 per model to more than \$2,000 per model. There are few laboratories in the United States capable of conducting the testing, so there is limited capacity for a rush of testing. In addition, while the federal test standard is based on the ISO1217-2009 test standard, DOE made a series of small but potentially significant changes to the test method in the regulation, as compared to ISO1217, changes on which Atlas Copco and the industry trade association, the Compressed Air and Gas Institute (CAGI), are still seeking clarification. These revisions will likely require these laboratories to change their procedures going forward before they can assure that new testing is conducted in complete conformity to the new federal test standard, even though the individual changes are relatively small.

Testing every compressor model will impose a test burden on Atlas Copco in excess of several million dollars, much of which could be avoided by use of AEDMs and by the use of prior valid ISO1217 data. Atlas Copco believes that many other companies in its industry will also face significant test burdens unless AEDMs and prior valid data generated using the ISO1217 test method are available for compliance certification purposes.

While Atlas Copco is concerned about wasting money on duplicative testing, its larger concern is that regulatory confusion about the federal test method will be badly



compounded by adoption of the proposed California rule without first making appropriate adjustments and clarification. That confusion threatens to result in inconsistent reporting by the industry, inconsistencies which will falsely suggest that machines with identical test results are substantially different in their energy efficiency. That confusion threatens to create an unfair market place where the most careful manufacturers lose sales to those who are less scrupulous or careful in their compliance efforts.

Perhaps most important from the Commission's perspective, customers making decisions about what kind of air compressor to buy will be given inaccurate information, resulting in the purchase and installation of less efficient compressor equipment than customers intended, to the detriment of the customers and the environment.

III. Current Regulatory Situation and Pending Litigation.

The January 2017 change of federal administrations has caused great regulatory confusion with regard to the Federal energy air compressor test standard and the efficiency standard for air compressors. That federal government confusion has caused significant testing delays by the air compressor manufacturing sector, as DOE has combined long silences with conflicting and intermittent guidance.

After a long and complicated rulemaking proceeding, the federal DOE adopted a test standard for compressor efficiency on January 4, 2017, a standard cited in the proposed changes to the California Regulations. DOE also tried to adopt an energy efficiency standard at the end of the Obama Administration, but that standard, which was about to be published in the Federal Register on January 23, 2017, was withdrawn January 20 by the Trump Administration.

The validity of the withdrawal has been successfully challenged by the State of California in federal court, but the court's decision was stayed and is now being reviewed by the U.S. Court of Appeals for the Ninth Circuit. Thus it is unclear until the Court of Appeals rules whether there will be a federal efficiency standard for compressors in the near future, and if so, what its compliance date will be The version proposed for publication would have made that compliance date five years from publication, which would have resulted in a compliance date some time in 2022.

Since that time, DOE has issued enforcement guidance stating that there would be no enforcement of the federal test standard for compressor efficiency until an energy efficiency standard is adopted and its compliance date reached. https://www.energy.gov/gc/downloads/enforcement-statement-air-compressor-test-procedures

Thus, as recently as June 8, 2018, DOE issued updated guidance stating that no air compressor efficiency testing was required until the compliance date for a yet-to-be



adopted compressor efficiency rule. This guidance, in DOE's view, apparently justifies its continued refusal to respond in writing to CAGI requests for clarification of key aspects of the federal test rule.¹

This regulatory confusion may be resolved by the pending litigation before the Court of Appeals, which is currently being briefed. The final briefs in that case are due July 16, 2018. Oral argument has yet to be scheduled, but the Court made clear in its order staying the District Court's decision that decision was to be expedited.

If the State of California's position, adopted by the District Court, is affirmed by the Court of Appeals, then DOE will be required to publish its December 5, 2016 version of the air compressor efficiency standard, thereby setting compliance dates and having a material effect on the Proposed Rule now before the Commission. With that uncertainty resolved, the Commission can better tailor its rule so that it helps improve energy efficiency in this sector without imposing duplicative, needlessly costly, or conflicting test obligations.

To address such concerns, Atlas Copco respectfully suggests that the Commission defer adoption of the portions of the current Proposed Rule under 2018-AAER-10 concerning testing, labeling and certification of air compressors. Instead, Atlas Copco recommends that any such changes be considered and adopted together with any air compressor efficiency standard chosen by the Commission, after addressing the concerns that Atlas Copco has identified with the Proposal's efforts to integrate the federal test standard into the California rules. That proceeding, Docket No. 2018-AAER-5, is thought likely to result in a substantive efficiency standard late this year or early next year, at a time when there is a reasonable possibility that the Ninth Circuit litigation will be resolved.

For the foregoing reasons, Atlas Copco respectfully recommends that the Commission defer action on the portions of the Proposed Rule that relate to air compressors, and

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¹ Section 1603(c), page 105, provides that when a waiver of a federal test standard has been granted, compliance testing is to be based on the federal standard as revised by the waiver. Because of the legal limbo of the federal efficiency standard, DOE to date has refused to act on timely filed test waiver petitions. The case of an Atlas Copco subsidiary, Quincy Compressor, demonstrates this problem. The federal test standard requires ambient temperatures to be below 90 °F for testing; however, Quincy Compressor's location in Alabama means that during most of the summer, Quincy cannot conduct tests unless it spends over \$500,000 to build an air conditioned test facility. Quincy sought a waiver of the ambient temperature requirement, based on well known facts about American geography, but DOE still refuses to act. Some additional time is warranted to address the waiver issue in the California rule, or to explore the possibility of a California waiver procedure.



instead coordinate any such changes with the pending air compressor efficiency standard it is considering. Atlas Copco also recommends that the Commission address the significant, if unintended, inconsistencies between the Proposed Rule's test and certification requirements and the federal test standard's implementation, particularly with respect to the use of AEDMs and the use of prior valid test data generated using the ISO1217 test method.

Respectfully submitted,

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