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for Commerical Tumble Dryers

Additional submitted attachment is included below.

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September 1, 2017

California Energy Commission
Docket Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 17-AAER-01 for Commercial Tumble Dryers

Dear Commissioner McAllister:

Alliance Laundry Systems LLC (ALS) is the world's largest commercial laundry equipment manufacturer. We manufacture commercial clothes washers and tumble dryers under the Speed Queen™, Huebsch™, Unimac™, Primus™, and IPSO™ trademarks in Ripon, Wisconsin. We also manufacture consumer residential laundry equipment under the Speed Queen™ trademark. We employ approximately 3,000 people in the USA. Thank you for the opportunity to comment on the proposed changes.

The following are our comments concerning Docket No. 17-AAER-01 for Commercial Tumbler Dryers:

A). ALS, an Association of Home Appliance Manufacturers (AHAM) member, fully supports AHAM and the submitted comments from AHAM, the Textile care Allied Trades Association (TCATA), and the Coin Laundry Association (CLA) dated September 1, 2017.

B). ALS opposes any standard for commercial dryers.

C). Auto-termination is not a viable option in the commercial market. Vended commercial dryers are regulated by states Weights & Measure laws, because users are deemed to be buying "time" (minutes of heating plus cool-down). Any attempt to require auto-termination through moisture sensing would be deemed non-compliant. Additionally, moisture sensing is an expensive feature that would require expensive electronic controls.

D). Any perceived energy savings is minimal. A commercial environment requires "through-put" or a given amount of laundry in pounds to be processed daily. An increase in cycle time or downtime due to repair of costly and complicated unproven technologies will create a need to install a higher quantity of machines to equal the previously established through-put. The resulting energy usage will ultimately be much higher than a small savings in a single machine.

E). Remaining moisture content (RMC) is a much larger factor in energy usage in tumble dryers. On the federal level, standards advocates have already agreed that removing moisture in clothes loads is far more efficiently done in the washer through higher spin extraction speeds. It should be noted that the difference between the most efficient and least efficient residential dryers is very

small. This is why the FTC does not require Energy labelling of residential clothes dryers. The same can be said for large commercial dryers.

F). Significant increase in cost to consumers (and commercial equipment owners). Small energy efficiency gains will result in excessive product cost increases, and drive additional equipment purchases. Brick and mortar would be required as machine counts increase.

G). Considerable concern over test burden. Excessive capital would be required to meet the test procedure as defined. Environmental chambers, test loads, etc., will require extensive capital expenditure and drive costs of equipment upwards. Also note that the size of the machines, the large make-up air, the considerable number of tests, and the extensive number of basic families requiring testing, will drive considerable capital investment solely for California.

Furthermore, the ambient temperature as listed in the proposed procedure should reflect that of other test methods (75 F). Forcing the ambient to a different level (65 F) will result in an entire lab shutting down solely for CA testing. This is not an efficient approach.

H). RMC levels below 5% are not feasible. The large nature of these loads will make it impossible to weigh the final Moisture Retention (MR) with any real precision. As loads are unloaded they absorb moisture from the surrounding air driving MR up. Large loads can take considerable time to unload and movement from the machine to the scale adds additional soak time. MR levels will creep up during this delay.

I). Efficient technologies as stated are not proven reliable in a commercial environment. Down time will be the result. The technology referenced should be examined in more depth and in real world situations with statistical methods and statistically valid sample sizes. ALS suggests the CASE team reevaluate each technology option in this way. In ALS's experience we have found the following:

- Heat exchangers have a high cost of installation and increase the equipment size footprint. Ultimately this drives increased laundry space and higher capital costs.
- Burner/fan modulation tends to be complicated and expensive, and has little benefit to energy efficiency as drying technology is fairly straightforward. The load is heated to a given temp, and maintained at that level until an MR is reached. Regardless of modulation, the required load temp remains the same. Any decrease in temperature simply increases overall cycle time, resulting in the same energy usage.
- Heat pump technology has an even higher initial installation cost, and further extends cycle times. More machines will be required to do the same throughput of laundry, negating the perceived savings.
- Improved motor technology may improve overall efficiency but savings is very small when compared to heat energy.
- Auto termination sensors have considerable reliability concerns. It's very difficult to pick up an electrical signal from a sensor within a rotating drum. In addition, see comments concerning state's Weights & Measures laws (item C).
- Exhaust recirculation has considerable issues with uncontrolled lint deposits. As deposits grow, efficiency drops below what a "standard" machine could see. Excessive lint buildup can also represent a fire concern in some cases.

J). ALS objects to software customization requiring distributors or customers to retest for efficiency ratings. Every customer has a different need, as they launder different type of materials and load makeup. Many controls are essentially unlimited in the amount of permutations that could be programmed. Manufacturers cannot possible foresee what an end customer might select for cycles. Dryers should be tested in an "as manufactured" state with a cycle defined by the manufacturer for "normal cotton loads".

K). Test runs required should be further limited. 5 or 6 runs per basic model family will increase manufacturer's test burden significantly. This cost will ultimately be carried by the end customer, reducing any cost effectiveness of possible energy savings.

L). ALS suggests the CASE team study the cycle selection makeup of On-Premise Laundry (OPL) and Coin operated machines. The current test proposal weights each of five runs equally. It's suggested that the highest used cycles be weighted heavier than less used cycles/conditions. Lower used scenarios should be dropped from the potential test cycle list lessening test burden.

M). Finally, basic family definitions should be left to manufacturers. If energy usage and cost to benefit results remain identical, other options (regardless of what they may be) should not drive an additional basic family.

Thank you for your consideration of our comments and concerns.

Respectfully submitted,

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