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November 10, 2017

Ms. Pamela Gupta
Mr. Glenn Gallagher
California Air Resources Board
Research Division
1001 I Street
Sacramento, CA 95814

RE: Adopting California Restrictions on Refrigerants in Refrigeration and Air Conditioning

Dear Ms. Gupta and Mr. Gallagher:

Illinois Tools Works Inc. (ITW) is a U.S. manufacturer of value-added commercial and industrial-use products, components and systems. ITW greatly appreciates the opportunity to provide comments for the Air Resources Board's consideration to adopt California restrictions on refrigerants in refrigeration and air conditioning products.

ITW is a Fortune 200 company operating 85 divisions globally. In California specifically, over 300 residents are employed throughout a diverse portfolio of almost two dozen manufacturing businesses encompassing commercial foodservice equipment (CRE), automotive aftermarket and emergency roadside service products and other products. In addition, hundreds of additional business operations sell goods into California through countless commerce channels.

CARB overall objective

With respect to refrigeration products, the ITW Food Equipment Group, LLC (ITW FEG), represents the commercial refrigeration brands of Traulsen and Kairak (collectively, Traulsen) that are manufactured in Fort Worth, Texas. Traulsen has been a premier industry for 78 years, is among the top five largest CRE manufacturers in the world, and provides a diverse selection of commercial refrigeration and hot food holding products. Over the years, Traulsen, Kairak and their sister ITW FEG divisions have proactively introduced environmentally sustainable marketplace options to promote responsible resource usage, energy savings and overall good stewardship practices, while meeting the needs of the diverse North American commercial equipment market.

ITW FEG supports California's overall greenhouse gas reduction objectives, understanding that CARB has been tasked with implementing regulatory schemes to do so by 2030. It appears that great deliberation has gone into crafting effective, right-sized regulatory solutions to manage the state's greenhouse gas challenges while not appearing to overly burden the manufacturing community, its jobs or its customers. ITW is grateful to CARB for that demonstration of leadership.

Reaching GHG targets

Inasmuch as CARB has been diligent to calculate, model and project a GHG reduction runway to achieve 2030 objectives, ITW fears implications from developments over which CARB would have little to no control.

As you are aware, President Donald Trump has expressed his desire to remove the United States as a party to the Paris Agreement among almost 200 countries committed to its objectives. While the US currently remains party to the Agreement, it remains unclear whether the President will allow that to continue, and he could move with alacrity should he choose to announce a withdrawal. Formally leaving the agreement would certainly hinder CARB's ability to include the state GHG reduction quotient on which current calculations appear to significantly rely.

Second, as was illustrated during the October workshop, the EPA's SNAP Rule 20 is currently involved in existential litigation stemming from an August 2017 federal court ruling that vacated and partly remanded Rule 20 to the EPA for further consideration. Naturally, given that Rule 20 was finalized in July 2015 and commercial manufacturers like ITW had been working since then (or before) to comply with its transition mandates, it could be enormously disruptive to manufacturers and the marketplace if Rule 20's substance was suddenly moot. However, ITW believes that CARB can – and should – adopt Rule 20's dictates for itself, with minor modification as outlined below, as a way to contribute to your GHG reduction efforts over the next dozen or so years.

Moreover, and CARB rightly recognizes this fact, CRE products are complex, highly engineered equipment with longer product roadmaps (from concept to market introduction) than other less complex equipment. Manufacturers like ITW could ill-afford waiting to begin transition work, such as testing alternative refrigerants, product re-design and component sourcing. As such, we believe that CARB could further enhance GHG reductions by adopting Rule 20 effective dates. In fact, as a benefit of our market leading position, ITW has examined various of the issues impacting our transition and, based on that research and gained insights, ITW asserts that CARB could establish a July 2019 effective date for its version of EPA's Rule 20 as insurance against GHG projections falling short without doing harm to our product sector broadly.

Adoption of Rule 20

In addition, just like the EPA's Rule 20 does, it will be imperative that CARB recognize differences in CRE products and is standardized with industry common practice and nomenclature. It may seem a small point, however it poses a large potential for confusion and needless manufacturer and consumer headache as stakeholders struggle to understand and comply with a new regulation. The EPA – eventually – learned the hard way about the pitfalls of crafting its own terms for CRE; thankfully, the agency's Rule 20 did standardize product terminology before the regulation was finalized. CARB, too, has adopted linear terminology to properly refer to ITW products and those of industry peers as "self-contained," or as the EPA designated, "stand-alone" commercial refrigeration. We encourage you to continue this practice as the official regulation proceeding gets underway.

Manufacturers have cited many times that transitioning refrigerant involves testing and prototyping refrigerant alternatives as EPA dictates allow. Beginning several years ago, a suite of such alternatives – comprised of HFC-HFO blends – has been marketed and was recognized in EPA's Rule 20 as an acceptable selection of refrigerant alternatives for CRE. EPA also had to approve not only of the alternatives generally but specify its approval for certain end uses. To that end, the agency has so far given such an approval to two such blends – R-448 and R-450 – for use in commercial refrigeration and freezers. ITW would strongly urge CARB to ensure its adoption of Rule 20's substance include that alignment in your proceeding.

Finally, CARB must consider how to help manufacturers resolve other obstacles against implementing an HFC refrigerant transition. Specifically, if adopting EPA SNAP Rule 20 would mean also sanctioning the use of natural refrigerants such as propane or carbon dioxide, then, as rightfully mentioned during the October 2017 public meeting– CARB must work with state and local code authors and enforcement personnel where natural refrigerants are prohibited. As you're no doubt aware, too often customers will experience delays because of product "red tagging" or other impediments to their use of commercial equipment by state and/or local inspection

officials because of conflicts with a fire, building, energy, mechanical or other code. And, local jurisdictions cannot be allowed to prohibit installation and use of natural refrigerant equipment if CARB is to make any real headway toward its 2030 GHG reduction objectives. ITW would gladly work with the agency on the next steps needed to resolve any such challenges.

High GWP Refrigerant and Future Use

There is one point of clarification that CARB should also address. Under the EPA SNAP rule, installed self-contained and remote CRE equipment would be allowed to be serviced in-use with the legacy refrigerant with which it was originally charged. ITW has recently heard concerns among industry peers that, by banning the use of certain high-GWP HFC refrigerants after a date certain, CARB would intend that even already-installed equipment must be retrofitted – which would come at great cost to customers, because manufacturers and service technicians would be prohibited from introducing any high-GWP refrigerant into California. Indeed, on pages 17 and 19 of CARB's October 24 PowerPoint presentation, the agency outlines its regulatory impact on various categories of equipment, notably self-contained and remote condensing CRE. If a CARB-adopted refrigerant rule was to impose such a restriction, it would have an almost instant industry impact of suppressing today's sales of HFC equipment, which is still legal to manufacture, sell and install under Rule 20. As can be easily understood, CRE customers would be loath to invest in equipment today that would be rendered effectively – and practically – obsolete. ITW wants to believe (or hope) that either there is a misunderstanding among some industry stakeholders, or that such a result is an unintended consequence of CARB's future regulation that is correctable. If, however, the CRE understanding and fear of a looming outright prohibition on any and all use of high GWP HFC refrigerant once CARB's rule is adopted, including for servicing existing customer units, is envisioned, ITW would strenuously oppose any such provision.

To be clear, the EPA did also adopt a regulation under Section 608 of the Clean Air Act (CAA) amendments – and separately from the SNAP office's Rule 20 – to introduce new requirements on technician certification and field, or installed base, handling of high GWP refrigerant. The Section 608 rule, however, was not intended as a "back door" absolute prohibited against the future use of HFC refrigerant for installed based units, and ITW would caution CARB to craft its future regulation to avoid such an outcome. I am sure that CARB will find enthusiastic stakeholder partnership to do so constructively, as well.

CONCLUSION

ITW once again appreciates the opportunity to provide our stakeholder commentary to help the agency enhance its regulatory process. We have welcomed our opportunities to work together in the last several years, and will gladly offer support and expertise as possible going forward.

Respectfully submitted,

Kevin Washington
Government Affairs
Illinois Tool Works Inc.