This request is to extend the start time of the new regulations for at least one if not two years as the refrigeration industry – manufacturers, suppliers, refrigeration contractors, technicians and parts wholesalers are not ready to meet the requirements for refrigerated cold storage systems using CO2, Ammonia or A2L refrigerants in California for the small and medium sized food processors, distributors and wineries who have been using HFC air-cooled 5, 10, 20, 30 and 40 TR systems.

CO2 and Ammonia systems are not readily available and economically built to meet these low capacity systems requirements especially in dense population areas. R448a or R449A equipment meets these requirements and therefore needs to be allowed to be used in 2022 and into 2023 for the following reasons.

1. The A2L refrigerants under 150 GWP that are allowed are partially flammable and probably need building code revisions to be usable in California and may need UL listings.
2. The suppliers of the refrigeration equipment specifically for CO2 and Ammonia equipment which require water for refrigerant condensing are focused on the larger projects for the large food processors, distributors and wineries.
3. California is in a drought situation and only allowing the natural refrigerants that will require water for condenser cooling and not allowing HFC refrigerants that can be air-cooled used even at the higher ambient temperatures California is now seeing, seems counterproductive at this time.
4. R448 and R449 refrigerants are designed to be used in refrigeration systems without ever being replaced. They only affect the atmosphere if a system leak occurs which should only happen if a system is not properly built and maintained.
5. Many refrigeration contractors are still unaware of the pending CARB regulations with many users totally in the dark.
6. A very small number of contractors have people trained on CO2. This is very important especially for the systems that are designed for transcritical operation - close to 1800 PSI operation on the high side.
7. COVID significantly impacted the refrigeration industry in 2020 and is still impacting numerous suppliers today including those located outside the US, with some having to shut down their facilities if any workers are diagnosed with COVID.
8. 2021 is turning out to be a banner year for the HFC refrigeration equipment industry – the producers of the 5 to 40 TR systems - due to the slow down during 2020 due to COVID. This is resulting in ship dates that used to be 6-8 weeks extending now to 20-24 weeks – and in some cases 12 – 14 weeks getting close to 30 weeks.
9. This demand is resulting in significant parts shortages for the HFC manufacturer’s and is showing up at refrigeration wholesalers as well as significant price increases – up to 20 to 25% for equipment this year. This is putting extra load on the engineering departments – many still working remotely - to find alternate parts or suppliers, which takes them away from working on alternate refrigeration systems to HFC.
10. At the same time, this increase in demand is creating extra load on local building authorities causing many month permit delays. It appears that some ongoing projects may not get permitted and some not completely manufactured in time to meet the 1/1/2022 date resulting in some legal issues.
11. Many CO2 equipment suppliers are now committed with ship dates not available till the second quarter of next year.
12. This new regulation could affect the quality of the “COLD Chain” one of the major economic strengths of the USA in being able to deliver cold edible food to the consumer safely and consistently from all suppliers.

With all of this in mind, we respectfully ask that the new CARB refrigerant regulations be delayed for at least one year.