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AGC of California

HEADQUARTERS OFFICE
3095 Beacon Blvd.
West Sacramento, CA 95691
Office: 916.371.2422
Fax: 916.371.2352
member_services@agc-ca.org

Clerk's Office
California Air Resources Board (CARB)
1001 I Street
Sacramento, CA 95814

Submitted electronically: https://ww2.arb.ca.gov/applications/public-comments

April 25, 2023

***RE:* Comments on 15-Day Changes to In-Use Off-Road Diesel Regulation**

Dear CARB Staff,

On behalf of the Associated General Contractors (AGC) of California and California Construction and Industrial Materials Association (CalCIMA), we are submitting comments to the California Air Resources Board (CARB) in response to the 15-day changes to the In-Use Off-Road Diesel Regulation.

AGC of California is a member-driven organization that statewide consists of over 900 companies. Our members provide commercial construction services that utilize off-road equipment. We believe the construction industry is vital to the success of California. Together, our members actively create opportunities to build and strengthen our state. We are passionate about shaping policy, improving industry relationships, and developing our workforce. We support the use of renewable diesel where it can be safely accomplished. Our members recognize and value the benefit that renewable diesel has on surrounding communities.

We appreciate the opportunity to participate in CARB's regulatory process. Specifically, we appreciate the several meetings we had with CARB staff to discuss low temperature concerns regarding R99 and R100 renewable diesel. While staff did address this in their 15-day changes, we assert that limiting the months from October to February that an operator can procure low temperature-specific diesel is not sufficient for the Sierra and Mountain regions. Additionally, some of the record-keeping associated with the renewable diesel exemptions is concerning and collects data not relevant to compliance.

AGC of California and CalCIMA can support the 15-day changes associated with the In-Use Off-Road Diesel Regulation **if** the following amendments are made. We do not believe any of the amendments explained below will significantly impact previously conducted analyses. We would also be remiss if we did not thank the board for the important changes made as part of Board's direction. Please read for more information.

1. Thank You.

AGC of California and CalCIMA would like to thank the Board for their directions to staff, and staff for the resulting changes and clarity to this rule. Specifically, we support CARB staff clarifying that recordkeeping is not vehicle-specific, but order-specific: this change was incredibly important towards making this regulation manageable and implementable. We also appreciate the Board levelling the playing field for construction fleets which may be asked to do work in captive attainment areas. The removal of the confusing 2028 language was very beneficial for clarity. Lastly, the work on the renewable diesel temperature issue is greatly appreciated and has moved us far forward. However, as indicated below we believe that the issue needs additional improvement for mountain regions and hope our language can strike the proper balance.

2. Renewable Diesel Exemption.

AGC of California and CalCIMA greatly appreciate the opportunities to meet with CARB staff to discuss concerns with R99 and R100 renewable diesel in cold temperatures. Specifically, we found that at the known renewable diesel cloud point that the fuel can gel and freeze; this typically occurs at approximately 20 degrees Fahrenheit This can damage the equipment and poses a safety concern for those operating the equipment should hydraulics or other systems fail. In addition, it can result in costly project delays and delay the development of critical water and energy projects that are essential for California, in a worst-case scenario.

In response, CARB staff generated §2449(g)(5)(A-B) and §2449.1(f)(C-D). While we value the time and energy spent by staff to develop this language, we assert that limiting the months from Mid-October to February that an operator can procure and use low temperature-specific diesel is not sufficient for the Sierra and Mountain regions. We agree with CARB staff's use of the 10th percentile and 20 degrees Fahrenheit as a trigger for harm potential from using renewable diesel. We also agree with CARB staff that ASTM D975 is an important document.

However, we disagree that ASTM D975 "Sets" safe cloud points for fuel by region. ASTM D975 makes it clear that it does not and "could not" specify low temperature properties for fuel and stresses the importance of low temperature operability properties being agreed upon by the fuel supplier and purchaser. This is helpful as by properly categorizing the climate of our activities we will be able to ensure fuel suppliers understand the properties of fuel needed and make their determinations of liability and fuel delivery availability with a proper understanding of the fuels use. In effect should their renewable diesel not be sufficient to a fleets equipment and activities renewable diesel may be unavailable to us and the unavailability exemption will be triggered. This should help assist in the management of this issue and the self-selection out of the regional

marketplace of fuels that are unreliable in managing temperature to those regions' climate norms. We provide the full table 5 footnote relevant below. As the document is copyrighted material cited within the regulation, we will rely on the Board reviewing their own copy for further data on the variance of equipment and use to temperature that makes these factors important.

> **ASTM D975, Table 1– Footnote L Page 5**
> "**It is unrealistic to specify low temperature properties that will ensure satisfactory operation at all ambient conditions**. In general, cloud point Low Temperature Flow Test, and Cold Filter Plugging Point Test may be used as an estimate of operating temperature limits for Grades No. 1–D S15; No. 2–D S15; No. 1–D S500; No. 2–D S500; and No. 1–D S5000 and No. 2–D S5000 diesel fuel. However, satisfactory operation below the cloud point may be achieved depending on equipment design, operating conditions, and the use of flow-improver additives as described in X5.1.2. **Appropriate low temperature operability properties should be agreed upon between the fuel supplier and purchaser for the intended use and expected ambient temperatures.** Test Methods D4539 and D6371 may be especially useful to estimate vehicle low temperature operability limits when flow improvers are used. Due to fuel delivery system, engine design, and test method differences, **low temperature operability tests may not provide the same degree of protection in various vehicle operating classes**. Tenth percentile minimum air temperatures for U.S. locations are provided in Appendix X5 **as a means of estimating expected regional temperatures**. The tenth percentile minimum air temperatures can be used to estimate expected regional target temperatures for use with Test Methods D2500, D4539, and D6371. Refer to X5.1.3 for further general guidance on test application."

Understanding ASTM D975 provides regional adaptation into its system helps alleviate some of our fears. The properties of renewable diesel currently available to us and the temperature maps in ASTM D975 being interpreted as hard compliance levels concern us greatly. As clearly, they are and were not ever intended to be such. Additionally, the maps use regions that blend mountain and valley counties. As a result, they obscure how cold our mountains can get and for how long. For example, consider the difference in Sacramento and Yolo county temperatures in March, April and May to those of the Sierra's. Then consider construction fleets that must go to remote locations where people have never settled; there is only dams and other infrastructure. CARB staff's reliance on that data has been understandable. However, we assert that the historical 10th percentile online data from the National Weather Service reveals a more current and accurate picture of these mountain regions and their temperature variabilities than the historic data in ASTM D972 as represented in the maps within the ASTM.

Therefore, we have found current data that takes more recent weather conditions into account and demonstrates our concerns with renewable diesel in mountain operations. According to the National Weather Service for the Tahoe Truckee region of the Sierras and other mountain locations, the data clearly demonstrate both temperature variability in proximate mountain

locations and the prevalence of cold temperatures past February. Over the past 10 years in March, April, and May a significant number of days were less than 20 degrees Fahrenheit. Specifically, in March, 27% of the days were less than 20 degrees Fahrenheit in Tahoe City, CA; 42% of the days in Boca, CA; and 28% of the days in Mammoth Lakes, CA. In April, 17% of the days were less than 20 degrees Fahrenheit in Boca, CA; 14% of days in Mammoth Lakes, CA; and 49% of the days in Bodie, CA. Lastly, in May, 19% of the days were less than 20 degrees Fahrenheit in Bodie, CA. Please see Attachment A: 10th Percentile Minimum Temperatures Sierra and Mountain Locations Most Recent 10 Year Data. We have also provided the excel spreadsheet so that CARB may verify the data.

It is important to note that Boca and Tahoe City are less than 23 miles apart. The sites help show the variance that occurs in mountain temperatures, where slope, depth of valley, and other factors create significant variability making regional analysis critical for construction fleets that serve mountain regions. We assert that the Sierra Mountain region, not already exempted by virtue of being within a captive attainment area be exempted from the renewable diesel mandate for operations above 3000 feet in elevation. We have provided new 10th percent data derived from the National Weather Service website to justify the addition. Please add the following language:

§2449(c) New Definition:
"High Sierra and Mountain region" means the portions of Amador, Butte, Calaveras, El Dorado, Fresno, Glenn, Kern, Los Angeles. Madera, Mariposa, Merced, Mono, Placer, San Bernadino, Shasta, Tulare, Tuolumne, Yuba, and Nevada counties above 3000 feet in elevation.

Add §2449.1 (f)(2)(D) - New Exemption:
(D) Any fleet, fleet portion, or vehicle that is located or operated in a Sierra and Mountain region as defined is exempt from the renewable diesel requirements in section 2449.1(f)(1) solely for the months of October, November, December, January, February, March, April and May. These fleets or vehicles may use a low temperature-specific diesel fuel while that fleet or vehicle is located or operating in that region. Fleets utilizing this exemption may procure low temperature-specific diesel fuel from September 15 through the end of May and may continue to use excess low temperature-specific diesel procured during this time. Fleets may not continue to procure low temperature-specific diesel fuel after the end of May through September 14. All fleets utilizing this exemption must report to CARB in accordance with section 2449(g)(5)(A); and

Amend §2449(g)(5)(A) - Reporting Section:
(A) Fleets that use the exemption described in section 2449.1(f)(2)(C) must report to CARB the ~~location~~ region of the fleet or fleet operations, the 10th percentile minimum ambient air low temperature in January for that region ~~location.~~ In addition, fleets that use the exemption in 2449.1(f)2(C) and D shall report ~~and~~ the volumes of renewable diesel and volumes of low temperature-specific diesel procured and used during ~~October,~~

~~November, December, January, and February~~ their relevant exemption period based upon exemption used, including composition, if known, by the next annual reporting date of March 1, ~~by April 30 after each period the exemption is used~~. To determine the 10th percentile minimum ambient air low temperature, fleets may use public or private weather station data and may use historical low temperature data from the 10 years prior to the fleet requesting the use of this provision and the 10th percentile is the value below which 10 percent of the data, when sorted, fall. The fleet must submit this report to CARB by mail to CARB at the address listed immediately below, or electronically submitted to the DOORS@arb.ca.gov e-mail address:

The amendments we propose above ensure that construction activities that occur in our mountain headwaters natural resource areas, as well as everyday construction activities in mountain communities will not be disrupted. It demonstrates both the need and lack of impacts of our proposed exemption on sensitive Environmental Justice (EJ) communities by updating the risk of cold temperatures based on the data we provided in the attached list of documents.

We share the Board's goal of protecting EJ communities and believe these exemptions have been carefully structured to temperature, altitude, and mountain regions which provides both enhanced emission reduction in densely populated low-lying areas, while preserving safety and project management at altitude. Provided renewable diesel's cold performance is at 20 degrees Fahrenheit, and not the 26–32-degree instances of clouding and freezing we reported to staff earlier, we feel these are appropriate exemptions. We understand that CARB staff relied upon the best available data to them. We found the ASTM to be imprecise to the challenge of off-road equipment and a new technology of renewable diesel. Which currently has not demonstrated the capacity to deliver fuels at volumes capable of managing temperatures below 20 degrees. Unfortunately, cloud point data is remarkably not available currently from fuel providers.

3. Amend CARB "Emergency Cold Exemption" §2449.1(D)2

We also have a recordkeeping concern with what we are calling the Emergency Cold Exemption. It requires fleets to track weather and to respond to predicted or actual cold temperature days below 20 degrees Fahrenheit. This exemption is challenging to use because contractors support operations often by maintaining a fueling system. In the instances where there are temperature days below 20 degrees Fahrenheit, it will be extremely difficult for contractors to consume all of the low temperature-specific diesel and then replace it back with renewable diesel. We recognize even with our requested additional exemption above there are days that drop into the danger zone beyond those time frames and emergency management may be needed. Fleets likely will need to use this emergency exemption in some years, and we therefore would like to suggest the following changes..

Amend §2449.1 (D)2 – Amend Exemption:
§2449.1(f)(2)(D): Any fleet, fleet portion, or vehicle that is located or operated in a ~~location~~

region where the temperature drops below 20° F or a commercial or government provided local weather forecast predicts temperatures to drop below 20° F may use and procure low temperature-specific diesel fuel for the period of days in which the low temperature condition(s) occurs ~~.~~ or was predicted to occur. The temperature forecast must occur within 14 days from the first day in which the low temperature condition(s) occurs or were predicted to occur. After the low temperature condition(s) end, the fleet may use the remaining excess low temperature-specific diesel in the fleets fuel supply system or vehicle depending on how the fleet manages fuel purchases and until ~~vehicle until~~ the next refueling of the fleet's fuel supply system or vehicle as appropriate. All fleets utilizing this exemption must report to CARB in accordance with section 2449(g)(5)(B).

Fleets which fuel by system are not going to be able to implement spot vehicle filling to manage cold temperatures. It is not viable to expect fleets to load equipment on trucks to drive to service stations to only fuel a vehicle then return to jobs. Freezing in the vehicles can damage systems and the fuel will need to be removed from the impacted vehicles in advance of cold by siphoning or running it empty. The fueling system will need to be recharged with non-temperature sensitive diesels and run dry again. Off road equipment does not fuel like passenger vehicles and provision should be made for the various fueling methods CARB identified. Particularly the one identified as in use by a significant majority of fleets. Our changes are intended to make the rule obligations clear in how they manage the different identified fueling methods.

Regarding the recordkeeping for the exemption in 2449.1(f)(2)(D) we believe that should be clarified and made consistent with the rule.

Amend §2449g(5)(B):
(B) Fleets that use the exemption described in section 2449.1(f)(2)(D) must report to CARB, by the next annual reporting date of March 1 after the end of such use, the location ~~region~~ of the fleet or fleet operations, the volumes of renewable diesel and volumes of low temperature-specific diesel, and records of the ~~high and~~ low temperatures predicted or occurring which enabled ~~for each day~~ the low temperature-specific diesel to be ordered or procured. Records of temperature forecasts must include either a printout or screenshot that includes the date and data source. If the screenshot does not include the date and data source, the screenshot must include metadata. The fleet must submit this report to CARB by mail to CARB at the address listed immediately below or electronically submitted to the DOORS@arb.ca.gov email address:

The condition that is being regulated and managed is the purchasing of the fuel at low temperature and whether that occurred in accordance with the exemption. The records collected are collected to demonstrate compliance with that criteria and these adjustments are necessary to accomplish that purpose. By tracking only, the purchasing records reduce the burden of recordkeeping.

Conclusion

AGC of California and CalCIMA appreciates California Air Resources Board (CARB) for allowing us to comment on the 15-day changes to the In-Use Off-Road Diesel Regulation. We assert that CARB consider the comments we have expressed above. If you have any questions regarding the comments, please contact Brian Mello at 603-770-9264 (email: mellob@agc-ca.org) or Adam Harper at 916-554-1000 Ext. 102 (email: aharper@calcima.org). We appreciate the opportunity to comment and hope these concerns are addressed.

Sincerely,

Brian Mello

Brian Mello
Associate Vice President, Engagement & Regulatory Affairs
Associated General Contractors of California

Adam Harper
Director of Environmental and Land Use Policy
California Construction and Industrial Materials Association

AGC CALIFORNIA

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ATTACHMENT A

10th Percentile Minimum Temperatures
Sierra and Mountain Locations
Most Recent 10 Year Data

Month	October						
Location	**County**	**Elevation**	**Data Range years**	**Total Days Data**	**10th Percentile Farenheit**	**Days Under 20 Farenheit**	**% Days < 20**
Bodie	Mono	8379	2022-2013	285	**6**	169	59%
Boca	Nevada	5614	2022-2013	310	**15**	70	23%
Mammoth Lake*	Mono	7881	2019-2010	257	21	15	6%

- **2019 to 2010 data available**

Month	March						
Location	**County**	**Elevation**	**Data Range years**	**Total Days Data**	**10th Percentile Farenheit**	**Days Under 20 Farenheit**	**% Days < 20**
Boca	Nevada	5614	2022-2013	309	**11**	133	43%
Tahoe City	Placer	6250	2022-2013	310	**14**	84	27%
Mammoth Lakes*	Mono	7881	***2020-2010****	259	**13**	72	28%

**** No 2017 data & 2020 had 14 days Used 2020-2010 data***

Month	April						
Location	**County**	**Elevation**	**Data Range years**	**Total Days Data**	**10th Percentile Farenheit**	**Days Under 20 Farenheit**	**% Days < 20**
Bodie*	Mono	8379	2022-2013	235	**9**	115	49%
Boca	Nevada	5614	2022-2013	300	**18**	50	17%
Tahoe City	Placer	6250	2022-2013	300	23	10	3%
Mammoth Lakes	Mono	7881	***2019-2009****	283	**17**	39	14%

**** No 2017 Data - used 2022-2012 for 10 years***

***** No 2017 Data & post 2019 Data was 3 days in 2020 selected 2019-2009 Data***

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Month	May						
Location	**County**	**Elevation**	**Data Range years**	**Total Days Data**	**10th Percentile Farenheit**	**Days Under 20 Farenheit**	**% Days < 20**
Bodie	Mono	8379	2022-2013	236	**15**	46	19%
Boca	Nevada	5614	2022-2013	310	24	5	2%

Blue Cell's are below CARB's 10th percentile Trigger Temperature for January

Base data pulled from https://www.weather.gov/wrh/Climate?wfo=rev
Data Collected & Collated April 16, 2023 to April 23, 2023 Rev. Draft.Final