April 25, 2023

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

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

Re: Comments on Proposed 15-Day Modifications to Proposed Regulation Order Amendments to Sections 2449, 2449.1, and 2449.2, Title 13, California Code of Regulations

Dear CARB Staff:

The California Ski Industry Association (aka Ski California) is the trade association that represents 35 ski resorts in California and Nevada. As a lead supporter of previous environmental efforts, such as the landmark AB 32, we appreciate the opportunity to comment on the California Air Resources Board (CARB) Proposed 15-Day Modifications to Proposed Regulation Order Amendments to Sections 2449, 2449.1, and 2449.2, Title 13, California Code of Regulations. We have reviewed the proposed regulations and have serious concerns about our resorts' ability to operate their ski areas if the regulations are implemented as drafted.

The major issue for our areas in the proposed regulations is cold temperature operations. For purposes of this issue, we have been in communication with the Associated General Contractors (AGC) of California and California Construction and Industrial Materials Association (CalCIMA), which also submitted a comment letter today. In that letter, AGC and CALCIMA addressed several common issues, including conducting research on temperatures above 3,000 feet in elevation in California mountain regions. Our member resorts store fuel and use fuel in equipment and vehicles at over 11,000 feet and in conditions with temperatures not just below freezing (32 degrees Fahrenheit), but below zero.

Our resorts work in an environment where the proposed regulations cannot apply because (1) ski area weather and maintenance are volatile and unpredictable, (2) storing and shifting between different fuel types is unreasonable and impractical, and (3) the regulations as drafted fail to consider the coldest areas of California where the use of renewable diesel is not possible. For these reasons, we ask that CARB amend the regulations to exempt our industry from the proposed regulations.

Ski Area Weather and Maintenance are Volatile and Unpredictable

Ski California resorts conduct ski area operations from 5,500 feet in elevation to above 11,000 feet. Our member resorts, 32 of which are in California, span most of the state, from Mt. Shasta

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Ski Park in the north to 700 miles south at Big Bear Mountain Resort. Our operations have begun as early as October and extended as far as August in any given year (this year we have at least two resorts that will be open into at least July). Our resorts conduct mountain operations in the harshest conditions imaginable, with temperatures well below freezing and winds in excess of 200 MPH.

Our resorts use several types of off-road diesel-fueled vehicles that are necessary for ski area maintenance on a year-round basis, including snowcats, loaders, backhoes, blowers, and others.[1] Some of the vehicles operate exclusively on the snow, while others operate on snow, dirt, and paved roads. These vehicles and equipment might be used at any given time to maintain a ski area, and in temperatures well below freezing.

Our vehicles operate at the base of a mountain, and at its highest elevation. They operate at night when temperatures at are their lowest. It might be sunny and 35 degrees at the base, and 20 degrees and snowing at the top. At other times, it is the reverse. At high elevation, where fuel is stored at many ski resorts, the temperature is rarely warm enough to support renewable diesel.[2] At some resorts and certain elevations, the average temperature rarely gets above freezing, even in summer. At Mammoth Mountain, for example, there was one day in the last six months where the daily minimum was above 32 at the summit, and 122 days where it was below 15. Even at mid-mountain, those numbers are five days above 32 and 89 days below 15. Basic temperature plotting at lower elevations fails to capture what really happens at a ski resort.

Weather also plays a role in sourcing different fuels. In comparison to petroleum-based fuels, renewable fuels are much harder to source into the remote towns where ski resorts are located due to distance and road conditions in the winter (closures, chain controls, etc.). This winter serves as a perfect example. It was a challenge to get fuel of any kind during several closures throughout the state, particularly in March (a month excluded from exemption in section 2449.1(f)(2)(C)).[3]

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[1] We note that many of these vehicles are used for purposes similar to “Dedicated Snow Removal Vehicles” as defined by section 2449(c)(12), and exempted from the performance requirements in sections 2449(d), 2449.1, and 2449.2. Many of them do not remove or move snow for purposes of clearing a paved road, but ski resorts often use them to clear a path for other vehicles, mountain personnel and guests, as well as allow a mountain to open on any given day.

[2] From AGC and CALCIMA: “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.”

[3] From AGC and CALCIMA: “… 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.”

Storing and Shifting Between Different Fuel Types is Unreasonable and Impracticable

Regardless of temperature or weather conditions, our vehicles and equipment must have the ability to operate in any conditions, and on a moment's notice. It is both unreasonable and impracticable to expect that ski area operators can shift between renewable and low-temperature diesel in their vehicles and equipment.

Fuel storage is the first major concern. Our resorts store tens of thousands of gallons of fuel on the mountain and most of the time it is not accessible after the first time it snows. The fuel is acquired and stored *by* September.[4] Fuel is often stored at the top of mountains, exposing it to the coldest and harshest conditions and making it impossible to store renewable diesel or switch inventory based on a forecasted temperature swing at different elevations. Furthermore, most ski resorts do not have existing infrastructure, additional fuel storage tanks (or space for them), or the necessary piping required for R99 or R100 fuel. Installing extra (and different) fuel tanks takes a substantial amount of capital, planning, additional employees (mechanics), and local permitting.

The reason for most of this is, again, weather. Even assuming an ability to store it, while renewable diesel might be fine one day, it might gel and freeze overnight, causing significant damage and potentially delaying life-saving operations on a mountain. AGC and CALCIMA also point out this valid concern of swapping low-temperature diesel and renewable diesel for construction "projects," but many of the operations at ski areas are not project-related. Our operators are forced to respond to issues that arise on a moment-to-moment basis without warning. They cannot be expected to adhere to strict fuel-type requirements under such circumstances because it is simply not possible.

Finally, original equipment manufacturers (OEMs) like Pisten Bully and Caterpillar strongly discourage mixing or switching fuels back and forth in vehicles and equipment. Doing so causes issues with the emissions equipment and the fuel systems (pumps, filters, etc.) in the vehicles and equipment due to differences between the fuels in cold weather operating conditions.

Many of the Coldest Parts of California are Not Included in the "Cold Area Exemption"

As AGC and CALCIMA note, referencing what they call the "Cold Area Exemption" (section 2449.1(f)(2)), or "captive attainment" exemption per the definition (section 2449(c)(6)), the county designations for renewable diesel exemptions create serious application challenges for these proposed regulations. If the general purpose behind the county designations was to identify colder areas of the state, many such areas have been left out and there are additional challenges with using counties at all.

[4] Note that this falls outside of the current draft exemption period, but it is the reality for procuring and storing fuel in a high elevation environment. To be prepared for winter, our resorts cannot wait until October to acquire fuel and fill tanks.

In reviewing the selected counties that can trigger a captive attainment exemption, we note that most of the counties with ski areas are excluded, yet these are some of the coldest places in the state:

- Placer County, one of the coldest and snowiest counties in the state, is not on the list. There are 10 Ski California member resorts in Placer County.

- Nevada County, which abuts Placer and includes the infamous Donner Summit at 7,227 feet, is not on the list. There are four Ski California member resorts in Nevada County.

- While Alpine County makes the list, Kirkwood Mountain Resort, with one of the highest base elevations in all of California (7,776) and rising to nearly 10,000 feet, operates in Alpine, Amador, *and* El Dorado County, the latter two of which are not on the list. There are two other Ski California member resorts in El Dorado County.

- Mono County is not on the list. Mono County is home to Mammoth Mountain, which tops out at 11,053 feet, and might be the snowiest ski resort on Earth this year. There are three Ski California resorts in Mono County. Further complicating matters, like the situation with Kirkwood, is that the 11,053-foot summit at Mammoth is actually in Madera County (also not on the list) by a matter of feet. Over 800 inches of snow has fallen at that location this year.

- Southern California is not thought of for cold temperatures, but that does not prevent the five Ski California member resorts in Los Angeles and San Bernardino Counties from making snow in below-freezing temperatures every year. These resorts start at 6,500 feet and top out near 9,000 feet.

- Other counties with Ski California member resorts that are not within CARB's captive attainment definition include Fresno (China Peak), Tuolumne (Dodge Ridge), and Calaveras (Bear Valley Adventure Co.).

In addition to preventing Ski California member resorts from meeting the definition of captive attainment, the recordkeeping requirements would be nearly impossible. The ability to track fuel type by piece of equipment, day, and temperature will be extremely burdensome when the average ski resort is running 20-50 pieces of equipment on a two-shift (16-hr) basis during winter operations, in constantly changing conditions, and at elevations that can vary as much as 3,000 feet within a single resort.

Ski Area Maintenance Operations Must Be Exempted from the Proposed Regulations

While we support the amendments sought by AGC and CALCIMA, they do not go far enough for our industry. In mountain regions, temperatures can change rapidly and without warning at almost any time of the year. At higher elevations, our mountains create their own weather. There is no timetable that will allow us to use renewable diesel at one time and not at another. Many of our maintenance needs on the mountain spring up with little warning, and these situations occur

without regard to temperature or time of year. We need the ability to use any equipment or vehicles at any time without regard to what fuel is currently in them.

Therefore, Ski California and its member resorts request the following addition to section 2449(b)(2)(H) ("The following are not subject to this regulation:"):

(15) Vehicles and equipment used for ski area maintenance.

Conclusion

We sincerely appreciate CARB's efforts to reduce pollutant emissions, something our industry continues to act upon and support. We strongly encourage the use of renewable diesel. One of our resorts has doubled its use of renewable diesel in the last few years, but has done so in off-mountain applications where it can control the challenges presented by using renewable fuel. The ski industry is continuing rapid investment in Tier 4F equipment and is entirely dependent on the OEMs to advance equipment to Tier 5 EU standards or hybrid/electric. For any specific ski industry fleets deemed "LARGE" by CARB, there exists a fleet average index requirement that ensures fleets meet the latest CARB requirements, and are in fact, moving to the next approved TIERed diesel motor as defined by CARB (e.g., large fleets can no longer add a Tier 3 motor to their fleets, used or new, only T4F which is currently the highest available standard in the country).

Our members will continue to use renewable fuel when we can, but we cannot support the forced use in high elevation environments and in equipment that will impede our ability to safely operate our mountains for the seven million-plus skiers and snowboarders who visit us each year. We must allow technology to catch up with current operations. Currently, renewable diesel can gel and freeze under conditions that other fuels do not, conditions that regularly occur throughout the year in a high mountain environment. But we know technology changes, and when it does, our resorts will make every effort to be at the forefront of change to our vehicle fleets.

Ski California and its 32 member resorts in California appreciate the opportunity to comment on CARB's proposed regulations. If you have any questions regarding our comments, please do not hesitate to contact me.

Sincerely,

Michael L. Reitzell
President
California Ski Industry Association