February 20, 2018

California Air Resources Board

1001 I Street

Sacramento, CA 95814

Re: Comments on “Concepts to Minimize the Community Health Impacts from Large Freight Facilities”

Calgren Renewable Fuels appreciates the opportunity to comment on the potential concepts to reduce emissions from large freight facilities, including Indirect Source Review (ISR) rules and other measures capable of achieving similar levels of emission reductions.

We would like to make the following recommendations and comments:

1. Per the ARB meeting materials provided at the February 15th meeting in Fresno, ARB current thinking is to “Require equipment to transition to zero emission operations, supplemented with near-zero emission technology” (slide PM-8). We would like to encourage ARB to be technology neutral and not focus all their efforts on hydrogen and electric vehicles. The technology for hydrogen Class 8 trucks is still in testing stage with Toyota and the Tesla battery electric Class 8 truck is not in production. CNG freight trucks exist now and the technology continues to improve. Emissions from Cummins Westport’s 8.9L ISL G engine are 90% lower than the current Nox limit of 0.2 gram per brake horsepower-hour and meets 2017 EPA greenhouse gas emission reduction requirements. Cummins Westport’s new 12L engine, its ISX12N model, received similar certification from ARB in January 2018. We support a hybrid approach to low emission equipment and facilities, with emphasis on those technologies that can best assist with rapid development of RNG, as set forth in paragraph 4 below. The current availability of a wide range of proven, certified CNG engines would indicate a need to provide strong support for RCNG.
2. Also included in the meeting materials on PM-8, was the concept of “Prioritized rulemaking based on contributing to health risk and seek fastest transition in most impacted communities.” We believe the fastest transition would be to promote the conversion of drayage and delivery trucks to CNG, primarily from renewable sources produced in California. We support an approach of continued funding for vehicle conversion in addition to new funding for refueling infrastructure. Increasing incentives for vehicles fueling infrastructure would not only remove barriers for wider adoption of advanced fuels but also send the signal to fleets and communities that this technology is ready to play a critical role in California emission reduction goals.
3. The Central Valley is known for having some of the worst air quality in the country. As set forth on the San Joaquin Valley Air Pollution Control District’s website, the Valley is shaped like a narrow bowl bordered by mountain ranges. “The bowl-shaped Valley collects and holds emissions caused by the Valley’s three million residents and their two million vehicles, as well as vehicles from other areas traveling on Highway 99 and Interstate 5….These characteristics cause the San Joaquin Valley to be unusually susceptible to significant air pollution problems.“ This situation calls for immediate action. As set forth on page 6 of the State Implementation Plan Attainment Contingency Measures for the San Joaquin Valley 15 ug/m3 Annual PM2.5 Standard released on August 25, 2017, ARB is properly focusing attention on the Valley’s heavy-duty fleet since “it represents almost half of the NOx emissions in the Valley and they provide the bulk of the emission reductions needed to meet the 15 ug/m3 standard.” Low-emission CNG engines that are available now can reduce local community air emissions. In other parts of California it may make sense to wait until electricity and hydrogen poered freight trucks are available, but not in the Central Valley. The situation in the Central Valley is dire. Prompt implementation of readily available low emission technology should be encouraged.
4. Dairies in Kern, Tulare and Kings have built and continue building dairy digesters to capture the methane emission from dairy manure. The captured methane can be cleaned to pipeline grade gas and used for transportation fuel in CNG-powered feight trucks. Dairy digester gas used for transportation fuel can provide multiple benefits to local communities while also aiding in state climate goals.
5. SB-1383 mandates a 40% reduction in methane emissions from dairy livestock. The fastest and most effective way to reduce methane from dairies is via digesters. Using dairy digester gas to power on-site electricity generation is disfavored by grant agencies such as the CDFA because it creates additional sources of air emissions. Thus the CDFA correctly favors the production of transportation fuels such as RCNG. The push for increased RCNG needs to coincide with ARB support for demand.
6. The RCNG currently used in California is primarily sourced from out-of-state landfills, often under long term contracts. Calgren will be bringing California’s first dairy cluster project on oine later this year. Surprisingly, there is little current demand for this important product. To get our dairy digester gas into existing CNG refueling facilities in California we must agree to “buy out” contracts with out-of-state landfill operators. This situation needs immediate attention. One solution is to encourage the implementation of more CNG freight hauling within the Valley. Calgren is prepared to help incentivize that effort.
7. Calgren would far rather incentivize new RCNG demand than help existing CNG refuelers buy their way out of existing contracts with out-of-state landfills. In many cases, operators of existing CNG refueling facilities are part of the problem, rather than part of the solution. Calgren has approached several existing CNG facility owners who were recently encouraged by their facility operators to sign up to multi-year contracts. Seemingly this was to take the facilities “off the market” prior to the ready availability of California dairy biogas. To make things worse, many of the facilities are owned by municipalities and school districts who utilized State funding for construction. Thus Calgren urges that policy makers consider ways to encourage State-funded CNG facilities to include producers of California dairy biogas on future sourcing solicitations.
8. The Central Valley needs jobs. The California Labor Market Information Division reported the unemployment rate in Tulare at 10.1% in Tulare County in December 2017. This is over double the national average of 4.1% reported by the Bureau of Labor Statistics for the same period. Building a CNG market in the Valley will add desperately need jobs.
9. CNG made from dairy biogas has the biggest impact on improving GHG emissions from transportation fuels. Hydrogen and Electricity, even from renewable sources, are not as effective as RCNG. See the table below that compares the fuel carbon intensity scores.

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| Fuel Type | Fuel CI | Fuel Code |
| Crude Diesel | 102.01 | ULSD001\_2 |
| Electricity from CA Grid | 105.16 | ELC002\_1 |
| Solar Electricity | 0 | ELCR200 |
| Hydrogen via Electrolysis | 0 | HYGE200L |
| Liquid H2 from central reforming of NG | 143.51 | HYGN002\_1 |
| CNG from Dairy Biogas in CA | -272.97 | CNGDD200L |

Calgren would like to thank ARB staff for their considerable effort to work with stake holders. These regulations as well as many other are important to meet the State’s air quality goals. We believe this needs to be a synchronized effort and we are prepared to do our part to help.

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Lyle Schlyer

President

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