State of California
Air Resources Board

BOARD ITEM SUMMARY

ITEM # 20-4-4: Public Hearing to Consider Proposed Amendments to the Regulation on the Commercialization of Alternative Diesel Fuels

STAFF RECOMMENDATION:
The California Air Resources Board (CARB or Board) staff is proposing to amend the Regulation on the Commercialization of Alternative Diesel Fuels (Alternative Diesel Fuel Regulation) to strengthen the certification requirements for additives that are used to avoid potential NOx increases that could otherwise be caused by the use of biofuels in older diesel engines. Staff recommends the Board adopt the final proposed regulation presented today.

DISCUSSION:
The Alternative Diesel Fuel (ADF) Regulation is a key element of California's Fuels Program; it preserves or improves public health and the environmental and emissions benefits associated with the use of innovative ADFs in California. ADFs are diesel fuels that are not conventional diesel derived from petroleum and do not solely consist of hydrocarbons. As the consumption of ADFs continues to increase in the commercial market, the ADF regulation ensures that these fuels avoid potential adverse environmental impacts while realizing the benefits these fuels can provide in terms of reduced greenhouse gases (GHG) and potential reductions in nitrogen oxides (NOx), particulate matter (PM), and other criteria pollutants emissions, as well as increased fuel diversity in the State. The ADF Regulation establishes the regulatory structure and formal framework for these low carbon diesel fuel substitutes to enter the commercial market in California, while mitigating any potential environmental or public health impacts.

The Board adopted the ADF Regulation on September 25, 2015, and the regulation entered into full effect on January 1, 2016. Beginning in 2016, regulated parties started reporting produced, imported, and blended amounts of all biodiesel blendstocks and the biodiesel blends produced, pursuant to the reporting and recordkeeping requirements of the biodiesel in-use provisions of the regulation. The biodiesel in-use requirements, which mitigate potential NOx increases, went into effect on January 1, 2018. Effective January 1, 2018, all biodiesel blends above the NOx control level must be NOx mitigated by using additives or fuel formulations approved by CARB. In 2018, staff proposed amendments to the ADF biodiesel in-use NOx mitigation sunset provisions and certification requirements of the regulation to ensure long term NOx mitigation from biodiesel use. The amendments were adopted by the Board on September 27, 2018, and took effect in January 2019.

The continued use of ADFs will help California meet its climate and petroleum reduction goals, provide fuel diversity, and support emission reductions. As such, the

regulation was developed to ensure that the full commercialization of these fuels does not increase air pollution or cause other environmental impacts. This is accomplished by subjecting new ADFs to a rigorous, phased environmental review with specific terms and conditions. As part of the environmental review, staff determines whether the ADF has a "pollutant control level" for the pollutant of concern, which is defined to be that level of ADF use which could lead to an increase in the pollutant of concern. In that case, staff identifies the terms of the pollutant control level and defines the specific in-use requirements when conditions warrant mitigation.

The objective of the proposed amendments is to ensure that the process for certification of additives or ADF formulations provides assurance that those additives or formulations that pass the emissions testing are effective at mitigating the potential NOx emissions from the use of the biodiesel. This proposal is consistent with the original intent of the regulation and would ensure the achievement of the emissions benefits of the regulation as originally adopted.

SUMMARY AND IMPACTS:
The ADF Regulation includes specific provisions designed to control potential increases in NOx emissions that could otherwise be caused by the use of biodiesel. The provisions include a process for the certification of additives or alternative diesel fuel formulations that have been shown through emissions testing to mitigate potential NOx increases from the use of biodiesel.

The proposed amendments to the certification procedures, in addition to various clarifying improvements, would require 1) emissions testing at two independent labs, 2) additional emissions testing with a commercially available Designated Equivalent Limits Diesel, 3) presence of a qualified observer during test fuel preparation and emissions testing, and 4) more stringent chain of custody demonstration provisions. The amendments would require that any certified additive or alternative diesel fuel formulation, going forward, would need to pass a statistical test for emissions equivalence with diesel for both NOx and PM at both emissions testing labs and on both diesel test fuels. Staff is also proposing amendments that would require biodiesel additives and ADF formulations to be uniformly certified according to new certification procedures. These requirements would apply to all additives and formulations beginning January 1, 2021.

To provide assurance to the biodiesel market that mitigation options will be available regardless of whether or not NOx control additives are certified pursuant to the requirements of the proposed amendments, staff proposes to amend the regulation to provide an additional emissions equivalent formulation for biodiesel. Staff is proposing to add blends of renewable diesel and biodiesel to the list of approved emissions equivalent additives or formulations.

Staff determined that no subsequent or supplemental environmental analysis to the September 17, 2018, final Environmental Analysis for the Amendments to the Low Carbon Fuel Standard and the Alternative Diesel Fuels Regulations is required for the proposed amendments. Staff also does not expect there to be any significant adverse economic impacts as a result of these amendments.