

May 22, 2007

VIA ELECTRONIC SUBMISSION

California Air Resources Board

Clerk of the Board

1001 I Street

Sacramento, CA 95814

Electronic submission: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Re: Notice of Public Hearing To Consider the Adoption of a Proposed Regulation
For In-Use Off-Road Diesel Vehicles

To the Clerk of the Board:

United Airlines, Inc. (“United”) respectfully submits the following comments regarding the California Air Resources Board’s (“ARB’s”) Proposed Regulation for In-Use Off-Road Diesel Vehicles (“ORD Rule” or “proposal”).¹ United had previously submitted written comments to ARB staff regarding the proposed ORD Rule on March 19, 2007 and April 3, 2007. United reserves the right to supplement or revise its comments as this rulemaking process moves forward.

INTRODUCTION

United owns and operates an airport ground support equipment (“GSE”) fleet in the State of California. United’s fleet includes mobile GSE units powered by diesel-fueled off-road compression ignition engines, as well as other fuel types. Our GSE units are subject to the aggressive fleet average, retrofit, and turnover requirements of the proposed ORD Rule. United’s California GSE fleet is also subject to ARB’s Off-Road Large Spark-Ignition Rule, the Portable Diesel-Fueled Engines Air Toxic Control Measure, and the Portable Equipment Registration Program Regulation.

¹ See Notice of Public Hearing, Initial Statement of Reasons (“ISOR”), and related regulatory materials <http://www.arb.ca.gov/regact/2007/ordiesl07/ordiesl07.htm> (updated April 6, 2007).

United recognizes the importance and magnitude of this proposal and supports ARB's efforts to reduce emissions of diesel particulate matter ("PM") and oxides of nitrogen ("NOx"). However, United respectfully disagrees with the manner in which ARB has proposed to achieve such emission reductions from GSE fleets. Outlined below is a summary of United's concerns as well as recommendations for ARB to consider in revising the proposed ORD Rule.

A. ARB's proposed ORD Rule undermines the effectiveness and utility of the fleet average compliance option by mandating retrofits of all affected GSE units regardless of fleet average emissions.

The current proposal sets forth two (2) initial options for demonstrating compliance with the interim emissions reduction targets. From 2010 until 2020, large GSE fleet owners may choose to comply with either the interim fleet average emission requirements for diesel particulate matter ("PM") and oxides of nitrogen ("NOx"), or the Best Available Control Technology ("BACT") retrofit and turnover requirements. The limited flexibility afforded by the fleet average compliance method is short-lived however, because the proposal requires that by March 1, 2021, all affected GSE must be equipped with the highest level Verified Diesel Emission Control System ("VDECS"). In other words, the proposal requires large GSE fleet owners to install the highest level VDECS on any non-Tier 4 engine, regardless of the fleet average emission levels of the particular fleet. As a result, large GSE fleet owners will not be able to take advantage of the fleet average compliance option through 2020, because they will be required to immediately retrofit all affected vehicles by March 1, 2021.

This approach is misguided, and perhaps more importantly, unnecessary for ARB to ensure enforceable and quantifiable emission reductions. The proposed 2021 GSE retrofit requirement undercuts the flexibility of the fleet average compliance option, increases the costs of an already very costly regulation, places the burden of compliance on GSE end-users rather than on manufacturers, and produces no commensurate environmental benefit. During the informal rulemaking process on this proposal, ARB staff presented the fleet average compliance option as an effective method to secure the necessary emission reductions but at the same time allow affected fleets the flexibility to tailor their compliance strategy to the specific needs of their fleet. ARB's endorsements at that time were wholly consistent with the fleet average compliance option in ARB's recently adopted Off-Road Large Spark-Ignition Rule ("LSI Rule"). Thus, ARB's abrupt departure in this proposal from the structure of the LSI Rule's fleet average compliance option was unanticipated and from United's perspective a significant setback in the proposed ORD Rule.

In the ISOR, ARB staff neither discusses nor explains the reasoning behind their decision to restrict and effectively undermine an effective fleet average compliance option. Instead, in the ISOR, ARB staff is still presenting the fleet average compliance option as a method that will allow "fleets to comply by meeting a fleet average so each fleet can choose its own best, most cost-effective path toward compliance." (See ISOR at pg. 4). ARB's explanation ignores the effect of the proposed 2021 GSE retrofit requirement on the flexibility and usefulness of the fleet average option. From an end-user's perspective, whose responsibility it is to develop and implement a compliance plan, a fleet average concept is useful and cost-effective only to the extent it provides planning flexibility. Here, such flexibility is eliminated by the 2021 VDECS requirement. So too is an effective tool for ARB to achieve cost-effective emission reductions. ARB should reconsider its approach and propose an ORD Rule that allows GSE fleet owners to develop and implement long-term compliance plans that could include a combination of retrofits, lower-emission purchases, and zero-emission electric purchases. This would provide genuine flexibility that does not face an inflexible requirement in 10 years that will control fleet management decisions from the effective date of the rule.

The adverse impact of the 2021 retrofit requirement is further exacerbated with respect to GSE in particular. ARB staff is familiar with the unique nature of GSE units and has been provided several presentations by the Air Transport Association ("ATA") explaining the specialized functions of GSE. The GSE market is small and highly specialized. According to a 2005 ARB survey, ARB staff estimates that airport GSE constitute only one (1) percent of vehicles affected by the proposed ORD Rule. (See ISOR at pg. 15). The availability of GSE retrofit equipment is even further limited. For example, in ARB's Technical Support Document for the proposed ORD Rule, ARB staff has failed to provide examples of any existing and proven retrofits applicable to GSE. Currently, there are no demonstrated examples of technologically and economically feasible retrofit devices applicable to GSE that would allow GSE fleet owners to comply with the proposed 2021 retrofit requirement. Retrofits for GSE are not readily available from original engine manufacturers. Instead, GSE retrofits must be designed, developed and tested to operate properly relative to the GSE's unique operational functions and safety requirements. By eliminating other available compliance options, the proposed ORD Rule effectively shifts the burden of compliance and technological development to GSE fleet owners, rather than placing that burden on manufacturers.

B. The proposed interim fleet average emissions targets in 2010 through 2013 for Diesel PM are unreasonable for large GSE fleet owners to comply with and should be revised.

Under the current proposal, the fleet average emissions targets for NOx and diesel PM become increasingly stringent over time. In the proposal, the diesel PM fleet target average is the driver for overall compliance and ARB has proposed stringent diesel PM fleet target averages for large GSE fleets for compliance years 2010 through 2013. In the ISOR, ARB staff fails to discuss whether these 2010-2013 targets are technologically or economically feasible for large GSE fleet owners. As stated in United's prior written comments to ARB on March 19, 2007, as applied to United's GSE fleet, the interim diesel PM fleet targets are unreasonable even under the most aggressive of GSE fleet turnover scenarios. For example, even if United were to turnover approximately 10 percent of its affected GSE fleet on an annual basis, adding only electric-powered vehicles, United would still be unable to demonstrate compliance with the diesel PM fleet target averages for 2010-2013. The severity of these interim targets is further compounded by the lack of available incentive funds to help large GSE fleet owners comply with the proposal. ARB recognizes this problem in its ISOR and states: "Because the compliance dates for large fleets would begin in 2010, the majority of large fleets would not be able to access Carl Moyer Program funds once the regulation is adopted." (See ISOR at pg. 48).

The proposed early diesel PM fleet average targets are unreasonable and impose unduly harsh requirements on large GSE fleet owners, who constitute less than one percent of all vehicles affected by the proposed ORD Rule. United respectfully requests ARB to revise the current proposal and circulate for consideration a new set of reasonable early diesel PM fleet average targets for large GSE fleet owners. In doing so, ARB should reevaluate its assessments of the costs and compliance burdens associated with the proposed ORD Rule, and any revised proposal, in light of United's comments.

C. ARB's proposal unfairly penalizes GSE fleet owners who have made substantial early investments in electric-powered GSE.

United has made substantial early investments in electric-powered GSE in California and elsewhere since 1981. ARB's proposed ORD Rule arbitrarily denies United from receiving the full benefit of the emissions reductions associated with its early and voluntary efforts to use electric-powered GSE in lieu of diesel-fueled vehicles. The proposal effectively penalizes United for taking early action and sets a precedent that would discourage others from voluntarily investing in new emission reduction technology. Indeed, diesel-fueled vehicle owners who did not take early emission reduction actions are rewarded for delaying investments until the regulation becomes effective.

Specifically, the proposed ORD Rule provides that electric airport GSE vehicles purchased prior to January 1, 2007 may only be partially counted in the fleet average. Under the proposal, "partial" credit means that GSE fleet owners may only take 20 percent credit for their existing electric-powered GSE. In contrast, the current proposal provides that for compliance dates 2010 through 2016, the Max Hp of all electric vehicles purchased on or after January 1, 2007 may be "doubled" in determining the Max Hp that is used in calculating the Diesel PM Index and, as appropriate, NOx Index. In its ISOR, ARB neither justifies nor discusses the rationale for arbitrarily eliminating 80 percent of the emission reduction credit associated with electric airport GSE purchased prior to January 1, 2007. ARB's proposal is also inconsistent with ARB's own Zero Emission Vehicle Program in which ARB states that zero emission vehicles and near-zero emission vehicles are a key element of California's plan for attaining health based air quality standards.²

United should receive the full benefit from the emissions reductions obtained from its usage of existing electric GSE, and respectfully requests ARB to revise its proposal to explicitly allow GSE owners to take full, not partial, credit for electric airport GSE vehicles purchased prior to January 1, 2007.

D. Further revisions to the proposal are necessary to ensure appropriate emission reduction credit for electric-powered GSE.

a. The proposed definition of "Maximum power" (Max Hp) as applied to electric vehicles is unworkable and should be revised.

Max Hp means "the engine's net horsepower or net flywheel power certified to Society of Automotive Engineers (SAE) Method J1349. If the engine's net horsepower or net flywheel certified to SAE Method J1349 is not available, another net horsepower or net flywheel power from the manufacturer's sales and service literature may be used." See Section 2449(c)(27). This proposed definition of Max Hp is incompatible with electric vehicles, because SAE J1349 does not apply to electric vehicles and the electric vehicle motor power is determined from a curve and is not a unique value. This definition should be modified to allow the maximum Hp for an electric-powered unit to be equal to the corresponding diesel unit performing similar activities within the fleet.

b. ARB should not limit electric vehicle replacements to GSE units "used for a purpose for which diesel vehicles are predominantly used."

² See <http://www.arb.ca.gov/msprog/zevprog/zevprog.htm>.

The current proposal allows fleet owners to include electric vehicles in their fleet if the owner can demonstrate such vehicle serves a function and performs the work equivalent to that of diesel vehicles and is used for a purpose for which diesel vehicles are predominantly used. ARB's insertion of the term "predominantly" is problematic and should be revised. First, the term predominantly is ambiguous and not defined by ARB in the proposal. Thus, this term could be interpreted by ARB and GSE fleet owners in a number of different and conflicting ways.

Second, ARB's use of the term predominantly may create a disincentive for GSE fleet owners to replace a diesel vehicle with an electric unit. As ARB is aware, many of the same airline ground support functions can be performed by both LSI and diesel-powered vehicles. For example, beltloaders and baggage tractors may be either LSI, compression ignition, or electric-powered. Here, by creating an ambiguous and undefined predominance test, ARB's proposal discourages GSE fleet owners from adding electric units to their fleets, even if the electric unit is in fact replacing a diesel vehicle.

In the context of GSE, where diesel vehicles may be substituted for electric units, the application of a predominance test is contrary to ARB's policy of encouraging the use of electric units. There is simply no justification for ARB to limit electric vehicle replacements to GSE units used for a purpose for which diesel vehicles are predominantly used.

United recommends that ARB modify this requirement and adopt the approach used in ARB's LSI Rule. Specifically, ARB's revised proposal should allow fleet owners to take credit for electric-powered vehicles in their fleet average if the fleet owner can demonstrate that the vehicle performs the work equivalent of a diesel-fueled vehicle.

CONCLUSION

As stated in United's prior written comments to ARB on March 19, 2007 and April 3, 2007, the structure and design of the proposed ORD Rule is unsurpassed in its complexity, stringency, and in costs of compliance for ORD end-users. United is fundamentally concerned with the immense complexity and unfairness to GSE owners of the fleet average compliance option, including the lack of full credit for existing electric GSE units.

United respectfully requests ARB to review and address the concerns outlined above and reevaluate its assessments of the costs and compliance burdens associated with the proposed ORD Rule, and any revised proposal, in light of United's

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comments. If you or your colleagues have questions or require additional information concerning the issues discussed above, please feel free to contact Jeff Endsley at 847-700-6995, Jeff.Endsley@united.com or Robert Schlingman at 310-342-8405, Robert.Schlingman@united.com.

Very truly yours,

UNITED AIR LINES, INC.

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