APPENDIX E: PROPOSED MINOR AMENDMENTS TO THE OFF-ROAD AND LSI FLEET REGULATIONS

This appendix gives an in-depth description of the proposed minor amendments to the off-road and LSI fleet regulations.

A. Proposed Minor Modifications to the Off-road Regulation

The following sections describe, in detail, the proposed minor amendments to the off-road regulation.

The proposed minor amendments include:

- Replace the word "should" with "shall" wherever it appears in the regulation;
- Modify the captive attainment area fleet definition to address the proposed major modification to combine the PM and NOx fleet average and BACT requirements;
- Clarify the low use vehicle definition;
- Modify the flexibility engine provisions to simplify the reporting requirements for post-2007 flexibility engines and remove the requirement to account for such "flex" engines differently in the fleet average calculations;
- Clarify the alternative fuel regulatory language;
- Add additional incentives for electric vehicles;
- Include a provision to incentive the use of hybrid vehicles;
- Remove the hours in fleet average compliance option;
- Add language to the new fleet provisions to clarify what requirements must be met by new fleets;
- Simplify the adding vehicle provisions;
- Combine the final compliance requirements for all fleets, and clarify that after the final compliance date, the turnover and retrofit exemptions are still applicable;
- Modify the reporting deadlines for all fleets;
- Modify the labeling requirements for all vehicles;
- Clarify the Compliance Certification process;
- Revise the order of turnover language to avoid requiring fleets to distinguish between Tier 1s with a PM standard and those without;
- Clarify the turnover exemption for vehicles with early VDECS installations by adding additional descriptive language; and
- Modify the SOON NOx targets to be consistent with the revised fleet average targets.

1. Take out the word "should"

The regulation contains the word "should" in many places throughout the regulation. Staff believes the word "should" could incorrectly be interpreted to

mean that many provisions in the regulation are optional, rather than mandatory as intended. Therefore, staff is proposing to remove all instances of the word "should" throughout the regulation, and will replace this word with "shall".

2. Captive attainment area fleet definition

Currently in the regulation, a captive attainment area fleet (defined in section 2449(c)(6)) is exempt from all the NOx (i.e., turnover) requirements of the regulation and is instead subject only to the PM (i.e., retrofit) requirements. The regulation was structured this way to recognize that such fleets operate only in the areas of the State with the cleanest air (and hence with the least need for NOx reductions) but still ensure such fleets reduced their toxic diesel PM emissions. Now that staff is proposing to remove section 2449.2 (the PM portion of the regulation), staff is proposing to modify this definition to designate a captive attainment area fleets a small fleet, regardless of the total horsepower in the fleet. This will still allow such fleets to have reduced compliance costs but still make progress toward reducing their toxic diesel PM emissions.

3. Low-use vehicle definition

The off-road regulation implicitly contains two types of low-use vehicles – year-by-year low-use and permanent low-use (ARB, 2009a). Therefore, staff is proposing to explicitly identify the two types of low-use within the regulation by including language currently available in the guidance document listed above.

4. Modify post-2007 flexibility engine provision

Currently per section 2449(c)(43) of the regulation, if a fleet contains a flexibility (FLEX) engine certified prior to January 1, 2007, the fleet can ignore the certification value of the FLEX engine, and instead use the emissions charts located in Appendix A of the off-road regulation to determine the appropriate emission factor to use for that engine. However, for post-2007 FLEX engines, the fleet must use the emission standard to which the engine is certified. Such engines are required per Title 13 Section 2423(d)(5) to be clearly labeled as flex engines on the engine label as follows: "*THIS ENGINE COMPLIES WITH CALIFORNIA EMISSION REQUIREMENTS UNDER 13 CCR 2423(d). SELLING OR INSTALLING THIS ENGINE FOR ANY PURPOSE OTHER THAN FOR THE EQUIPMENT FLEXIBILITY PROVISIONS CITED MAY BE A VIOLATION OF STATE LAW SUBJECT TO CIVIL PENALTY*". However, they are not required to be labeled with the emission standard to which the engine is flexed.

While complying with the regulation's initial reporting requirements in 2009, many fleets had trouble determining what standard their post-2007 FLEX engines were flexed to. ARB staff attempted to assist such fleets and found in many cases that it was difficult or even impossible to determine what standard to which the engine was flexed. Even the engine certification executive order does not list the information, again simply noting that the listed engine family is a FLEX engine. As a result, fleets with post-2007 FLEX engines may spend an inordinate amount

of time trying to determine the standard, and – even after attempting to find the correct standard - may report the standard incorrectly.

Staff is proposing to modify the Post-2007 flexibility provisions to no longer require the reporting of the actual emission factor for these engines. Similarly to pre-2007 flex engines, a fleet would ignore that the engine had been "flexed", and would instead use the emissions charts located in Appendix A of the off-road regulation to determine the appropriate emission factor to use for that engine.

5. Alternative fuel provisions

Currently in section 2449(d)(1) of the regulation, electric vehicles can be incorporated in a fleet (using 0 for the PM and NOx emission factors) and help meet compliance with the regulation's requirements. However, for some fleets, adding electric vehicles into their off-road fleet will increase the fleet's total horsepower and could result in (1) bumping the fleet up into the next fleet size category, and/or (2) increasing the amount of vehicle turn over and retrofitting required under the BACT requirements. These consequences have discouraged some fleets from using electric vehicles, which was counter to the intent of this provision. Therefore, staff is proposing to remove electric vehicle horsepower from the fleet's total horsepower calculation, which will also result in removing this horsepower from all BACT calculations as well.

Additionally, section 2449(d)(1) allows fleets to replace, repower, and convert diesel vehicles to alternative fuel vehicles as compliance options in the regulation. However, as implementation of the regulation began, staff became aware of several inconsistencies within the alternative fuel provisions. Therefore, staff is also proposing to modify various provisions in this section to clarify or remove ambiguous parts of the language. Staff does not anticipate that these clarifications or modifications will change the intent or tighten the stringency of the provisions.

6. Incentivize hybrid off-road vehicles

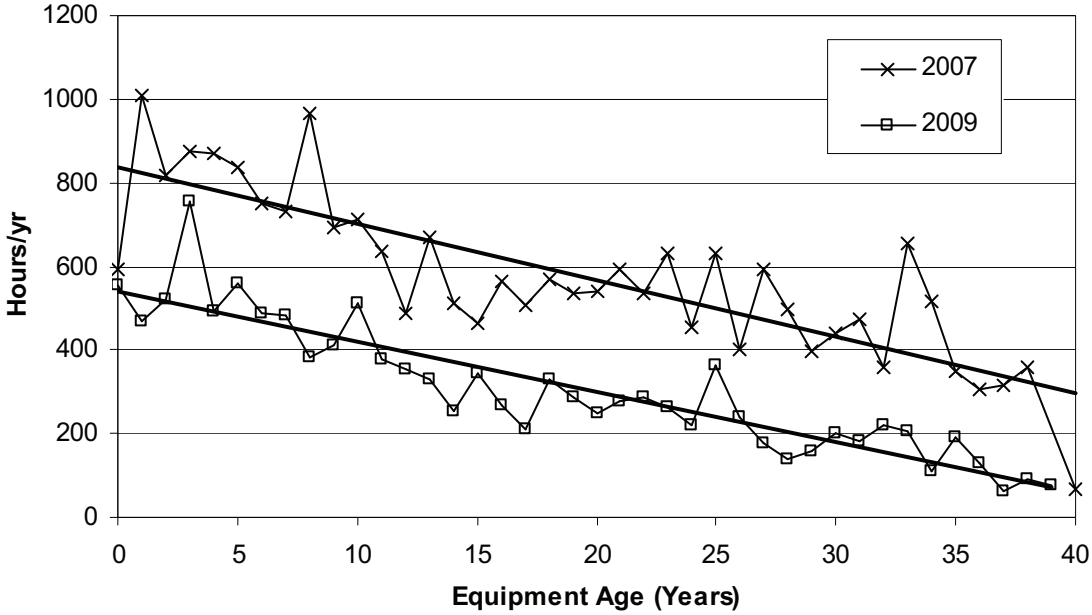
Hybrid electric-diesel off-road excavators and dozers are now available for purchase by California fleets. This technology shows promise in providing criteria pollutant and greenhouse gas emission reductions, while also achieving significant fuel economy benefits and fuel cost savings. Currently, there are only two manufacturers – Caterpillar and Komatsu – that offer hybrid equipment for sale in California; however, other manufacturers are expected to offer hybrid equipment over the next year. This technology offers an opportunity for lower emissions and fuel economy savings, but as the regulation is currently written, there is very little incentive for fleets to purchase these hybrid vehicles for compliance. Although these vehicles may have lower NOx and/or PM emission factors, a fleet that purchases hybrid off-road vehicles must still use the same emission factors as an equivalent tier diesel vehicle. Staff is proposing to incentivize the use of hybrid off-road vehicles by allowing fleets to use a lower

emission factor(s) for hybrid equipment used in a fleet. In order to use a lower emission factor(s), the equipment must have completed in-use emissions testing, and it must be shown through emissions testing that the emission factors of the hybrid vehicle are less than the emission factor(s) of an equivalent tier diesel vehicle. The fleet can then apply to the Executive Officer to use the lower emission factor(s).

7. Remove hours in fleet average provision

Many stakeholders have commented that they do not like the hours in fleet average option in section 2449(d)(2) because in order to use this provision, the fleet average calculated is increased by 18 percent. Stakeholders view this as a penalty that prevents them from utilizing the hours in fleet average provisions. The 18 percent increase was included in the regulation to account for the fact that newer vehicles operate more than older vehicles. Based on activity data submitted by fleets to ARB for the purpose of claiming AB 8 2X Reduced Activity Credit (AB 8 2X, 2009), staff still believes this 18 percent factor necessary; newer equipment is still being utilized more than older equipment (see Figure E-1 below). During the May and June 2010 workshops, staff polled workshop attendees regarding whether any fleets intended to utilize the hours in fleet average option as written, and no fleets indicated that they intended to do so.

Figure E-1: Average Vehicle Activity by Year in DOORS



Staff does not believe it is appropriate to remove the 18 percent factor; doing so would inadvertently decrease the stringency of the regulation and forego emission reductions. Therefore, since staff received feedback at the amendment workshops that this provision will not be used by fleets while the 18 percent

factor remains in place, to simplify the regulation, staff is proposing to remove this compliance option from the regulation.

8. New fleet requirements

Currently in the regulation (section 2449(d)(5)), if a fleet is new (i.e., either newly formed, or entering the state for the first time), it must be meeting the fleet average targets immediately upon forming, or entering the state. These requirements were developed to assure that 1) fleets cannot be formed with older Tier 0 equipment discarded by California fleets (i.e., would result in keeping older equipment within the state), and 2) that out-of-state fleets can only bring the newest, cleanest vehicles into the state. Additionally, by requiring new fleets to have cleaner equipment, it assures that in-state fleets already complying with the regulation would not be put at a competitive disadvantage to newly formed or out-of-state fleets (requires all fleets working in California to have invested in cleaner equipment). Although the intent of this provision is clear, currently it is ambiguous regarding whether or not a new fleet always has to meet the fleet average targets, or if the new fleet may, after having initially met the fleet average targets, meet the BACT requirements on other compliance dates after their first compliance date. Additionally, it does not specify what fleet targets (which compliance year, whether for large, medium, or small fleets) the fleet must meet. Staff is proposing to clarify exactly what fleet averages must be met, and when the fleet can start complying with the BACT requirements if they want to do so.

Staff is proposing upon purchasing vehicles or bringing vehicles into the state for the first time, a fleet must meet the following requirements:

- *Large or Medium fleets:* A new large or medium fleet must meet the fleet average target for the closest future *large fleet* compliance date upon initial formation or upon entrance into the state after the effective date of the proposed amendments.
- *Small fleet:* A new small fleet must meet the fleet average target for the closest future small fleet compliance date upon initial formation or upon entrance into the state after the effective date of the proposed amendments.

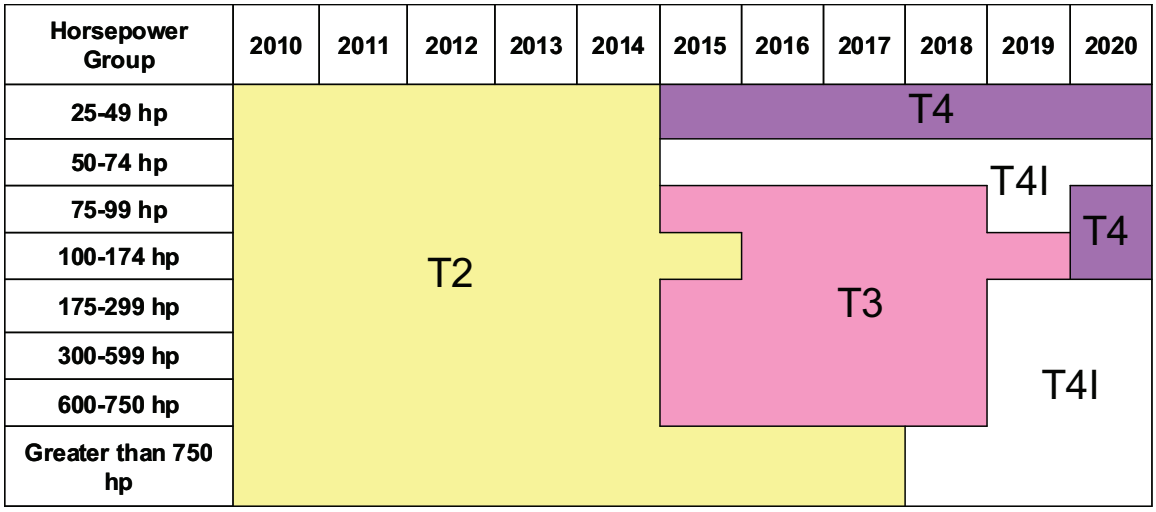
For any size fleet, the new fleet would have the choice of meeting either the fleet average target or the BACT requirements for subsequent compliance dates.

For example, if a medium fleet enters the state in June 2013, the fleet must be meeting the next future large fleet average target, which is January 1, 2014, immediately upon entering the state. After meeting this target, the fleet would have no other compliance requirements until the first medium fleet compliance date, which is January 1, 2017; for this compliance date, the fleet could meet either the fleet average target, or comply with the BACT requirements.

9. Adding vehicle requirements

The provisions in section 2449(d)(7) have requirements for adding vehicles that differ based on whether or not a fleet meets the fleet averages (i.e., is complying via the fleet average or BACT requirements). The chart below is an illustration of the adding vehicle provisions for fleets complying via the BACT requirements, and indicates the lowest tier vehicle that can be added in each year by a large or medium fleet. The requirements differ depending on the horsepower of the vehicle.

Figure E-2: Current Adding Vehicles Requirements



The adding vehicle requirements for small fleets or fleets meeting the fleet average targets are not shown, but have a similar level of complexity as that demonstrated by the chart above for large or medium fleets meeting BACT. Fleets have indicated that complying with this provision will be complicated and confusing if the provisions are not changed. Staff agree, believe fleets are likely to misunderstand the adding vehicle provisions if they are not simplified, and do not feel the complexity of this provision is necessary. Additionally, fleets have expressed uncertainty as to whether the adding vehicle requirements can or will be enforced prior to U.S. EPA granting authorization for ARB to enforce the performance requirements of the off-road regulation.

Staff is proposing to simplify this provision in the following ways:
Adding Vehicle Requirements - Amend this provision to require that:

- A ban on adding vehicles with Tier 0 engines to any fleet would begin only after:
  - The proposed amendments to the off-road regulation are certified by the Secretary of State; and
  - The Administrator of the U.S. EPA grants authorization to enforce the off-road regulation.
- Beginning March 1, 2011, large and medium fleets would be allowed to add only vehicles with Tier 2 or higher engines, except as follows. A

vehicle with a Tier 1 engine could still be added during this time, as long as all the following conditions are met:
    - The added vehicle with the Tier 1 engine must have been registered in DOORS before March 1, 2011;
    - The fleet adding the vehicle with the Tier 1 engine must be registered in DOORS; and
    - The fleet removing the vehicle with the Tier 1 engine must be registered in DOORS.
- Without exception, beginning January 1, 2013, large and medium fleets would be allowed to add only vehicles with Tier 2 or higher engines; beginning January 1, 2016, the restrictions would apply to small fleets; and
- Beginning January 1, 2018, large and medium fleets would be allowed to add only vehicles with Tier 3 or higher engines; beginning January 1, 2023, the restrictions would apply to small fleets.

These revised requirements will apply to all fleets regardless of compliance path, and to all horsepower categories, further simplifying this provision.

10. Compliance after the final target date

The current language regarding turnover exemptions is ambiguous as to whether or not these exemptions expire after 2020 (Compliance after the Final Target Date – section 2449(d)(10)). Additionally, with the delay in fleet requirements and the deletion of the PM portion of the regulation (section 2449.2), the dates and some of the requirements listed in this section are no longer applicable.

Staff is proposing to clarify in section 2449(d)(10), Compliance after the Final Compliance Date, that turnover and retrofit exemptions do not expire after the final compliance date. Additionally, staff is proposing to change the final compliance date for large and medium fleets to January 1, 2023 (from March 1, 2020), and for small fleets to January 1, 2028 (from March 1, 2026). Because staff is proposing to remove the PM requirements of the regulation, there will be no final PM compliance requirements. Therefore, staff is proposing that small fleets be required to meet the same final compliance requirements as large and medium fleets (i.e., they must meet the final fleet average); however, they will not need to meet those requirements until January 1, 2028, and there are no mandatory turnover requirements proposed for small fleets.

11. Modify the reporting dates

Staff is proposing to change the annual reporting dates in section 2449(g)(2) to make these dates more consisted with the new compliance deadlines. In the current regulation, all fleets must be in compliance by March 1 of each compliance year, and then report their fleet information to ARB by April, June, or August, depending on their fleet size. However, because staff is proposing to change the yearly compliance date from March 1 to January 1, staff is also

proposing to move the reporting date for all fleets to March 1. This means that instead of having large fleets report in April, medium fleets in June, and small fleets in August, all fleets would report on March 1 each year they are required to report.

Additionally, since the initial compliance requirements for all fleets have been delayed four years, staff is proposing to delay the annual reporting requirements as follows:

- Large fleets must report annually each year from 2010 to 2024;
- Medium fleets must report annually each year 2016 to 2024; and
- Small fleets must report annually each year from 2018 to 2029.

12. Modify labeling requirements

Staff has received feedback that the labeling provisions in the regulation (section 2449(f)(2)) would be easier to enforce if the EINs were required on both sides of the vehicle; currently only the right (starboard) side of the vehicle is required to be labeled. Therefore, staff is proposing to require that fleets label both sides of their affected vehicles.

Staff has also received feedback that the captive attainment area fleet provisions, which provide delayed requirements for vehicles that only operate in counties that meet federal air quality standards, will be difficult to enforce if vehicles that fall under this provision have labels that are identical to the labels of all other vehicles in the state. Therefore, staff is currently proposing to change the labeling requirements of these captive attainment area vehicles to require the EINs to be green with white letters, instead of red with white letters.

Fleets would be required to label both sides of the vehicle, and modify the labels for captive attainment area vehicles, by January 1, 2013, providing approximately two years to comply.

13. Compliance certification

Per section 2449(f)(2) of the regulation, fleets must submit, each compliance year, certification by the responsible official that the fleet information submitted to ARB is accurate, and that the fleet is in compliance with all regulatory requirements. Alternatively, the responsible official can designate a representative to sign on his or her behalf. This process is called Compliance Certification. This certification is commonly confused with the Certificate of Reported Compliance that ARB issues to the fleet once the Compliance Certification from the fleet is received by ARB. Many fleets have found this process confusing because “Certificate” and “Certification” are such similar words, and because Compliance Certification was not required during the initial reporting period, and will only be required going forward once the regulation’s requirements are being enforced. Therefore, staff is proposing to change the name of the Compliance Certification process (that must be submitted by a fleet

each compliance year) to instead be called the “Responsible Official Affirmation of Reporting” process, which is not easily confused with “Certificate”, and to add clarifying language regarding designating a representative that will take the place of a responsible official.

14. Order of turnover

When fulfilling the NOx BACT requirements, a fleet must turn over all vehicles without a PM standard (i.e., Tier 0 and Tier 1 “uncontrolled” vehicles) before the turnover of higher tiered vehicles can be counted toward the BACT requirements (section 2449.1(a)(2)(A)3.). Many fleets are not aware that Tier 1 engines between 50 and 175 hp are considered “Tier 1 uncontrolled” engines, and therefore would also not be aware that turning over a Tier 1 vehicle with 200 horsepower would not provide credit towards the requirements if a Tier 1 vehicle with 150 horsepower remained in the fleet. Staff is concerned that once the regulation is in effect, many fleets may inadvertently find themselves out of compliance because they kept a Tier 1 “uncontrolled” vehicle in their fleet and therefore were not able to take credit for turning over other Tier 1 vehicles. To simplify this provision, staff is proposing to revise this language to require fleets to turn over all Tier 0 and Tier 1 vehicles first, before the turnover of other higher tiered vehicles can be counted toward the BACT requirements in the fleet.

15. Turnover exemption for vehicles with early VDECS installations

Section 2449.1(a)(2)(A)4. allows a fleet to exempt up to 15 percent of its horsepower from later turnover requirements if it retrofits the vehicles with the highest level PM verified diesel emission control system (VDECS) by March 1, 2011. This provision was adopted to encourage early retrofitting. Several questions on the applicability of this exemption have arisen that staff believe should be addressed and the language clarified as shown below. The delay of all turnover and retrofit requirements also provides an opportunity to encourage additional early VDECS installations by extending the deadline for fleets to receive this credit.

Staff is proposing to add language to this section to extend the deadline for this provision from March 1, 2011 to January 1, 2013, and to clarify:

1. If a fleet has more than 15 percent of its vehicle retrofit before January 1, 2013, the fleet may choose any of those vehicles to be counted under this exemption, as long as the 15 percent cap is not exceeded; and
2. Specify that a fleet must keep the VDECS on the vehicle in order to maintain the exemption.

16. Recalibrating the SOON NOx targets

The NOx targets used in the program to achieve supplemental NOx reductions in the South Coast AQMD (the SOON program) in section 2449.3 begin in 2011,

and were set up to be more stringent than the fleet average targets for the off-road regulation. However, since staff is proposing to delay the regulation start date by four years and to modify the NOx fleet average targets, the SOON targets need to be adjusted accordingly to remain consistent. The current SOON NOx targets are shown in Table E-1 below.

Table E-1: Current SOON NOx Targets

Compliance Date: March 1 of Year	25-49 hp	50-74 hp	75-99 hp	100-174 hp	175-299 hp	300-599 hp	600-750 hp	>750 hp
2011	5.6	6.2	6.7	6.0	5.4	5.1	5.3	6.4
2014	4.9	5.1	5.2	4.7	2.8	2.7	2.7	4.2
2017	4.2	4.1	3.8	3.4	1.5	1.5	1.5	3.2
2020	3.5	3.2	2.4	2.2	0.9	0.9	0.9	2.6
2023	3.5	3.2	2.4	2.2	0.9	0.9	0.9	2.6

Staff is proposing to make no change to the 2011 SOON NOx target, but would make the remaining SOON targets more consistent with the new fleet average targets proposed by staff and shown in Appendix A of this staff report. The proposed SOON targets in Table E-2 below have increased in the earlier years, and decreased in the later years of the regulation.

Table E-2: Proposed SOON NOx Targets

Compliance Date: January 1 of Year	25-49 hp	50-74 hp	75-99 hp	100-174 hp	175-299 hp	300-599 hp	600-750 hp	>750 hp
2011	5.6	6.2	6.7	6.0	5.4	5.1	5.3	6.4
2014	5.8	6.5	7.1	6.4	3.9	3.7	3.7	5.3
2017	5.0	5.4	5.5	4.9	2.2	2.2	2.2	4.3
2020	4.1	4.2	3.4	3.1	1.4	1.3	1.4	3.4
2023	3.3	3.0	1.4	1.3	0.7	0.7	0.7	2.7

B. Proposed Minor Modifications to the LSI Fleet Regulation

The following sections describe in more detail the proposed minor amendments to the LSI fleet regulation.

1. Add an "Agricultural Operations" definition

The LSI fleet regulation does not define "Agricultural Operations", only "Agricultural Crop Preparation Services." The latter definition is a subset of the former and does not provide sufficient information. It also doesn't discuss how equipment used in both agricultural operations and non-agricultural operations should be treated. Staff proposes to add an Agricultural Operations definition, along with modifications to the FAEL definition, to clarify that: (1) LSI equipment used in agricultural operations is not subject to the FAEL standards, (2) nursery

and forestry operations are considered agricultural operations, and (3) more than half of the annual operating hours of a mixed use piece of equipment must be in agricultural operations for the vehicle to be considered engaged in agricultural operations.

2. Clarify the "Airport Ground Support Equipment" definition

The LSI fleet regulation defines "Airport Ground Support Equipment" or "GSE" as any large spark-ignition engine or electric-powered equipment contained in the 24 categories of equipment included in section B.3 of Appendix 2 of the South Coast Ground Support Equipment Memorandum of Understanding, dated November 27, 2002. Two of these categories are "carts" and "other," which, for the purposes of electric-powered equipment, can be interpreted very broadly. The intent of the GSE definition is to allow operators to include electric equipment in their FAEL standards calculations only as long as the equipment performs the work equivalent of an LSI engine-powered piece of equipment. Staff proposes to add clarifying language to the definition to reflect this intent.

3. Clarify the "Baseline Inventory" definition

The LSI fleet regulation requires operators to conduct a baseline inventory. The Baseline Inventory definition states that this inventory should reflect all equipment owned at the time of the inventory. The intent of the regulation was that the baseline inventory should reflect all operated equipment subject to the FAEL standards. Staff proposes to modify the Baseline Inventory definition to reflect this intent.

4. Add a "Boneyard" definition

Boneyards, which are repositories for surplus or end of service LSI equipment, contain entire fleets of retired equipment awaiting scrap or reuse by other entities. The LSI fleet regulation does not have a mechanism for dealing with decommissioned fleets. The ARB intends for these fleets to be excluded from FAEL standards calculations. Staff proposes to add a "boneyard" definition and modify the FAEL definition to exclude boneyard fleets.

5. Modify the "Fleet Average Emission Level" definition

There are two issues that the ARB wishes to address in this definition. First, the definition states that electric-powered equipment of less than 19kW shall be allowed to be included in the FAEL calculation if the operator can demonstrate it performs the work equivalent of LSI equipment. By definition, LSI engines have a power of 19kW or greater, so the intent of this language was that electric vehicles with a power rating of less than 19kW would have to demonstrate that they performed the work equivalent of the same category of LSI equipment prior to being allowed into FAEL standard calculations. However, electric forklifts and

GSE that do the work of a typical forklift or piece of GSE typically are rated at less than 19kW.

Second, the definition does not describe how experimental equipment, boneyard equipment, retired equipment, and in-field or agricultural operations equipment should be treated in FAEL standard calculations. ARB committed, during the LSI fleet regulation rulemaking, to exempt in field agricultural forklifts. It is also ARB's intent that boneyard, experimental, and retired equipment be excluded from FAEL standard calculations.

Staff proposes to modify the definition to exclude agricultural operations, boneyard, experimental, and retired equipment from the FAEL standards calculations. Staff further proposes to allow electric equipment of less than 19 kW to be included in FAEL standards calculations as long as the equipment performs, with similar efficiency, the same function as an LSI engine-powered piece of equipment subject to the standards. Finally, staff proposes to clarify that the default emission rate for uncontrolled LSI equipment is 12.0 g/bhp-hr HC+NOx.

6. Add an "In-field Equipment" definition

As mentioned above, the ARB committed to exempt agricultural forklifts used primarily in field, but this commitment was never codified. The ARB is now proposing to modify the fleet average emission level definition to exclude in-field LSI equipment, but must define "in-field." Staff proposes to add a definition for "in-field equipment."

7. Clarify the "Operator" definition

This definition states that "operator" includes a person whose usual and customary business is the rental or leasing of LSI engine equipment for any equipment not solely possessed or used for rental or leasing. The intent of the regulation was to allow dealers some de minimis level of use of their rental and used equipment fleet vehicles without triggering the FAEL standard requirements. As it currently stands, a dealer could become an operator if they use any four vehicles, regardless of duration of usage, for their own purposes. Staff proposes to modify the "operator" definition to stipulate a de minimis usage level that reflects this intent.

8. Add a "Retired Equipment" definition

Operators may retire LSI equipment as part of their compliance strategy. This retired equipment often remains on site awaiting sale or scrap. Through Mail Out #MSC 10-08, the ARB has established procedures for designating equipment as retired, but needs to include a retired equipment definition in the text of the regulation. Staff proposes to add a "retired equipment" definition.

9. Modify the record-keeping requirements

The LSI fleet regulation requires operators to record identifying and emissions information for each piece of LSI equipment in their fleet. It also requires them to obtain product delivery tickets or a like surrogate, if obtainable, stipulating that the fuel they are using meets motor vehicle grade propane specifications. The ARB added this second requirement in an attempt to force operators to put pressure on their fuel suppliers to provide uncontaminated and low-olefin (propene) content motor vehicle grade fuel. However, operators have been unable to obtain this documentation from their fuel suppliers. Staff proposes to remove the fuel quality record-keeping requirement. Staff also proposes to clarify the ARB's intent that the record-keeping requirement apply to each piece of LSI equipment.

C. References

ARB, 2009a. California Air Resources Board. *In-Use Off-Road Diesel Vehicle Regulation Frequently Asked Questions: Low-Use Provisions.* California Air Resources Board, April, 2009. http://www.arb.ca.gov/msprog/ordiesel/faq/faqlowuse.pdf