State of California
AIR RESOURCES BOARD

Resolution 03-17

July 24, 2003

Agenda Item No.: 03-6-2

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the Board or ARB) to adopt standards, rules and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, sections 43018(a) and (b) of the Health and Safety Code direct the Board to endeavor to achieve the maximum degree of emission reduction possible from vehicular and other mobile sources in order to accomplish the attainment of the state ambient air quality standards at the earliest practicable date;

WHEREAS, section 43018(c) of the Health and Safety Code provides that in carrying out section 43018, the Board shall adopt standards and regulations which will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel, including but not limited to specification of vehicular fuel composition;

WHEREAS, Health and Safety Code section 43013 authorizes the Board to adopt and implement motor vehicle fuel specifications for the control of air contaminants and sources of air pollution which the Board has found necessary, cost-effective, and technologically feasible to carry out the purposes of Division 26 of the Health and Safety Code;

WHEREAS, section 39667 of the Health and Safety Code authorizes the Board to adopt vehicular emission standards to reduce identified toxic air contaminants (TAC), and section 39666 authorizes the Board to adopt airborne toxic control measures (ATCM) to reduce emissions of TACs from nonvehicular sources;

WHEREAS, the ARB administers the California diesel fuel regulations which became applicable October 1, 1993, and currently include the following elements:

> A statewide limit on the sulfur content of motor vehicle diesel fuel of 500 parts per million by weight (ppmw);
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> A statewide limit on the aromatic hydrocarbon content of motor vehicle diesel of ten percent by volume with a limit of 20 percent for specified volumes produced by small refiners, allowing offsetting of higher aromatic hydrocarbon content

batches with lower aromatic hydrocarbon content batches to meet the ten-percent limit;

An alternative mechanism for complying with the aromatic hydrocarbon requirement under which a producer or importer may sell a certified alternative formulation that has an aromatic hydrocarbon content greater than the basic limits;

Establishment of procedures for certifying alternative formulations of diesel fuel which require the refiner to demonstrate through a series of engine tests that the alternative formulation will provide the same emissions benefits as the ten-percent standard (or in the case of small refiners, the 20-percent standard);

A mechanism for certified alternative formulations under which the values of five properties – sulfur, aromatic hydrocarbon, polycyclic aromatic hydrocarbon, and nitrogen contents, and cetane number – must be determined for the candidate fuel submitted by a refiner for certification, with the values for the candidate then becoming the required specifications for the alternative formulation;

WHEREAS, almost all current California motor vehicle diesel fuel is subject to the alternative diesel formulation provisions to comply with the aromatic hydrocarbon standard of the California diesel fuel regulations;

WHEREAS, in January 2001, the U.S. Environmental Protection Agency (U.S. EPA) published a two-part final rule that (1) establishes stringent new exhaust emission standards for oxides of nitrogen (NOx), non-methane hydrocarbons (NMHC), and particulate matter (PM) for 2007 and subsequent model year heavy-duty on-road engines and vehicles, with reduced certification diesel fuel sulfur content specifications of 7-15 ppmw which are necessary for the effective performance of the catalyzed diesel particulate filters, NOx after-treatment, and other advanced after-treatment technologies expected to be needed to meet the new more stringent emission standards; and (2) requires refiners, beginning June 1, 2006, to produce highway diesel fuel that meets a maximum sulfur standard of 15 ppmw; all 2007 and later model-year diesel-fueled vehicles must be fueled with this new ultra low sulfur diesel;

WHEREAS, in October 2001, the ARB aligned its exhaust emissions standards for 2007 and subsequent model-year heavy-duty on-road engines with those adopted in January 2001 by U.S. EPA in the federal rule for 2007 and subsequent model-year heavy-duty highway engines and vehicles, including the reduced sulfur content specification for the diesel fuel used in certification testing of those engines; these new emission standards represent a 90% reduction of NOx emissions, 72% reduction of NMHC, and 90% reduction of PM emissions compared to the 2004 model-year emission standards;

WHEREAS, neither the federal nor the state 2001 rulemakings regarding exhaust emissions from heavy-duty on-road diesel engines amended the specifications of diesel

fuel used in certifying light- and medium-duty diesel vehicles in California; the ARB's current specifications for diesel certification fuel for light- and medium-duty vehicles include an allowable range of sulfur content from 100 ppmw to 500 ppmw and specifies limits or allowable ranges for other fuel properties, including an aromatic hydrocarbon content of 8-12 volume percent (vol.%); manufacturers may also certify California diesel light- and medium-duty vehicles using certification fuel meeting U.S. EPA's certification fuel specifications for these vehicles;

WHEREAS, the South Coast Air Quality Management District (SCAQMD) amended its Rule 431.2 in September 2000 to require that low-sulfur (15 ppmw) diesel fuel be used in all stationary engines beginning June 1, 2004, and that all other diesel-engine applications must comply with the low-sulfur requirement by January 1, 2005, unless the ARB adopts the low-sulfur diesel fuel requirement, in which case the effective date becomes the same as that adopted by the ARB, but no later than June 1, 2006;

WHEREAS the ARB in August 1998 identified diesel particulate matter (diesel PM) as a TAC, and in September 2000 approved California's Risk Reduction Plan (RRP) to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles;

WHEREAS, the RRP recommends control measures for diesel-fueled off-road engines and stationary engines that include retrofitting of older engines with exhaust treatment technologies as well as stringent diesel PM emission standards for new engines that would require exhaust treatment technologies, and these exhaust treatment systems could not be effective without low sulfur diesel fuel;

WHEREAS, following a series of workshops, the staff has proposed amendments to the California diesel fuel regulations including the following elements:

A reduction of the maximum allowable sulfur content from 500 ppmw to 15 ppmw for vehicular fuel sold for use in both on-road and off-road vehicles;

A phase-in of the 15-ppmw sulfur limit so that it applies to diesel fuel being supplied from a production or import facility starting on June 1, 2006 (the same effective date as the U.S. EPA's 15 ppmw sulfur limit for diesel fuel), to diesel being supplied from terminals starting 45 days after the specified date, and generally throughout the distribution system starting 90 days after the specified date;

Amendments to the procedures for new certifications of alternative formulations to the ten-percent aromatic hydrocarbon standard: (1) requiring that the reference and candidate fuels meet the new 15-ppm sulfur standard, starting August 2004; (2) requiring that the candidate fuel properties meet the same property ranges and limitations as those required for the reference fuels and be within half the range of each reference fuel property; (3) reducing the allowable tolerance values for each pollutant by half its current value; and (4) eliminating a provision which reduces candidate fuel PM emissions by the lesser of a

calculated indirect sulfate difference or the actual measured sulfate content of the emissions;

A new alternative compliance mechanism as an option to meeting the ten vol.% aromatic hydrocarbon limit that would allow producers to meet the specifications for diesel fuel properties set forth below;

Property	Equivalent Limit
Aromatic Content (% by wt.)	≤ 21.0
PAH Content (% by wt.)	≤ 3.5
API Gravity	≥ 36.9
Cetane Number	≥ 53
Nitrogen Content (ppmw)	≤ 500
Sulfur Content (ppmw)	≤ 160 before 6/1/06 ≤ 15 starting 6/1/06

A reduction of the sulfur content range to 7 to 15 ppmw for the California diesel fuel that may as an option be used in certifying 2007 and subsequent model passenger cars, light-duty and medium-duty vehicles;

Establishment of a minimum fuel lubricity standard for vehicular diesel fuel of a maximum wear scar diameter (WSD) of 520 microns based on the High Frequency Reciprocating Rig (HFRR) method;

A phase-in of the lubricity standard so that it applies to diesel fuel being supplied from a production or import facility starting August 1, 2004, to diesel being supplied from terminals starting 45 days after the specified date, and generally throughout the distribution system starting 90 days after the specified date;

The following amendments that would make minor changes to the California diesel fuel regulations: replacement of the current sulfur test method with a more suitable test method for determining sulfur at the levels expected in diesel fuels produced to comply with the 15-ppm sulfur content limit; revision of the definition of “diesel fuel” to include any mixture of primarily liquid hydrocarbons that is sold or represented as suitable for use in internal combustion, compression ignition (diesel cycle) engines; establishment of an exemption from the diesel fuel requirements for diesel fuel used in qualifying military vehicles; a conforming amendment to the definition of diesel fuel in the verification procedure and in-use compliance requirements for in-use strategies to control emissions from diesel engines;

Establishment of an ATCM requiring that California nonvehicular diesel fuel meet the same ARB standards as California vehicular diesel fuel, with an exception for diesel fuel used in locomotives and marine vessels;

A committee of the American Society for Testing and Materials (ASTM) is currently conducting a ballot to determine whether a HFRR lubricity standard of a maximum WSD of 520 microns should be added to ASTM Standard Specification for Diesel Fuel Oils D-975; a regulation of the Division of Measurement Standards (DMS) in the Department of Food and Agriculture – section 4143, title 4, California Code of Regulations – requires California commercial diesel fuel to meet the specifications set forth in the latest version of ASTM D-975 contained in the Annual Book of ASTM standards;

WHEREAS, section 43830.8 of the Health and Safety Code (added by Stats. 1999, ch. 812 (Senate Bill 529, Bowen)) prohibits the ARB from adopting any regulation that establishes a specification for motor vehicle fuels unless a multimedia assessment is prepared and is reviewed by the California Environmental Policy Council (CEPC) prior to final adoption of the regulation, provided that no multimedia evaluation is needed for a regulation determined by the CEPC, after an initial evaluation not to have any significant adverse impact on public health or the environment;

WHEREAS, the proposed regulatory amendments will be reviewed by the CEPC prior to final adoption by the ARB;

WHEREAS, section 57004 of the Health and Safety Code requires an external peer review of the scientific portions of ARB regulations establishing a regulatory level, standard, or other requirement for the protection of public health or the environment;

WHEREAS, the California Environmental Quality Act (CEQA) and Board regulations require that an action not be adopted as proposed where it will have significant adverse environmental impacts if feasible alternatives or mitigation measures are available which would substantially reduce or avoid such impacts;

WHEREAS, the Board has considered the impact of the proposed amendments on the economy of the State;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

WHEREAS, the Board finds that:

The California diesel fuel regulations have resulted in significant reductions in emissions from diesel powered vehicles and equipment: greater than 80 percent for sulfur dioxide (SO_2), 25 percent for PM, and seven percent for NOx;

The California diesel fuel standards also result in reductions of emissions of several toxic substances, other than diesel PM, including benzene and polycyclic aromatic hydrocarbons;

Despite substantial improvements in California's air quality, most of the state does not meet the state or federal ozone standards and the majority of California is designated as non-attainment for the state and federal PM_{10} standards;

Significant additional reductions in mobile source emissions of ozone precursors (NOx and NMHC), and PM are essential if California is to attain the state and national ambient air quality standards for ozone and PM_{10};

Emissions reductions are also needed from nonvehicular diesel engines to meet the commitment in the State Implementation Plans (SIP) for ozone and PM_{10} and to make further progress towards attainment of both the State and federal ambient air quality standards;

Diesel exhaust contains toxic air contaminants and potentially toxic air contaminants which also include substances that are carcinogenic to humans or are possible human carcinogens;

The average potential cancer risk associated with diesel PM emissions was estimated at over 500 potential cases per million in 2000 with diesel PM cancer risk accounting for approximately 70 percent of the statewide average potential cancer risk from all ambient air toxics; therefore, additional diesel PM reductions are needed to reduce overall public exposure to air toxics and associated cancer risks;

Diesel PM after-treatment systems such as catalytic diesel particulate filters are able to provide more than 90 percent control of diesel PM, and NOx adsorbers – the technology expected to be used to meet the 2007 NOx emissions standards – can reduce NOx emissions by over 90 percent; and

Both the PM and NOx emissions control technologies have the potential to make significant amounts of sulfate PM under operating conditions typical of heavy-duty vehicles, and sulfate PM formed in this manner will result in total PM emissions in excess of the total PM emissions standard unless diesel fuel sulfur levels are at or below 15 ppmw;

WHEREAS, the Board further finds that:

The amendments approved herein that reduce the maximum allowable sulfur content of vehicular diesel fuel from 500 ppmw to 15 ppmw will enable the effective use of the emissions control technology that are needed by heavy-duty diesel vehicles and engines to ensure compliance with the new PM, NOx, and NMHC emission standards adopted by the U.S EPA and ARB, and will also enable the use of the exhaust gas treatment technologies that will be required by new and retrofitted diesel engines to meet the diesel PM reduction targets proposed in the RRP;

Various studies have shown that the emissions characteristics of diesel fuel blends may be affected by diesel fuel properties, such as density, that are not among the five specified for alternative fuel formulations; the difference between reference and candidate fuels could contribute to an improved emissions performance by the candidate fuel even though there is no assurance that the value of that property in diesel fuels produced commercially under the alternative formulation would be comparable to that of the candidate fuel;

The revised procedures for certifying alternative diesel formulations adopted herein are accordingly necessary to ensure that certified alternative formulations result in equivalent emissions to the candidate fuel formulations tested in the laboratory;

The new equivalent limits approved herein as an alternative to the ten-percent aromatic hydrocarbon standard are based on the average properties of certified formulations and should therefore preserve the actual emissions benefits of California diesel fuel; in addition, the new compliance mechanism would provide additional flexibility for refiners or importers and potentially allow more diesel fuel to be imported into the California market;

The amendments approved herein reducing the sulfur content specification for the California certification diesel fuel that may be used as an option to the federal certification diesel fuel in certifying 2007 and subsequent model-year passenger cars, light-duty trucks and medium-duty vehicles are necessary and appropriate because this sulfur content range will be representative of the commercial fuel on which these vehicles will operate, and the ARB's Low-Emission Vehicle program has allowed vehicle manufacturers to take advantage of the emission benefits of cleaner California in-use fuels;

It is not necessary or appropriate to allow the use of a cleaner California certification diesel fuel as an option to federal fuel in certifying heavy-duty diesel engines to the California exhaust emission standards, since these standards are identical to the federal standards which manufacturers are capable of meeting without the need of a low-aromatics certification fuel;

Natural fuel lubricity is expected to be reduced by the more severe hydrotreating that will be used to lower the sulfur content of diesel fuel to meet the 15-ppmw limit; however, lubricity additives are available to increase the lubricity of fuels that have had their natural lubricity agents depleted;

Also, advanced high-pressure fuel injection systems developed to reduce exhaust emissions will require even higher levels of lubricity than conventional systems and will become more prevalent within the next few years;

Therefore, a diesel fuel lubricity standard is necessary to ensure that California diesel fuel provides adequate lubrication for fuel systems of existing and future diesel engines to protect them from excessive wear that would reduce engine life and increase exhaust emissions;

If, as a result of ASTM action, DMS becomes obligated to enforce an HFRR lubricity standard of a maximum WSD of 520 microns for diesel fuel pursuant to section 4143, title 4, California Code of Regulations, it will not be necessary for the ARB to administer an identical lubricity standard;

The ATCM approved herein to require that California nonvehicular diesel fuel meet the same standards as vehicular diesel fuel (except diesel fuel used in locomotives and marine vessels) will complement and enable the use of high-efficiency, PM emission-control devices for nonvehicular diesel engines; and

The remaining amendments approved herein are necessary and appropriate to provide needed flexibility and help ensure effective enforcement of the California diesel fuel regulations;

WHEREAS, pursuant to the requirements of the CEQA and the Board's regulations, the Board further finds that:

Reducing the sulfur content of diesel fuel from the statewide average of 140 ppmw to less than 10 ppmw would reduce sulfur oxide emissions by about 90 percent or by about 6.4 tons per day from 2000 levels;

Sulfur in diesel fuel contributes to ambient levels of fine PM through the formation of sulfates both in the exhaust stream of the diesel engine and later in the atmosphere; reducing the sulfur limit of California diesel to 15 ppmw would reduce direct diesel PM emissions by about four percent, or about 0.6 tons per day in 2010 for engines not equipped with advanced PM emissions control technologies;

Burning low sulfur nonvehicular diesel fuel in stationary engines would reduce PM emissions by about 20 tons per year, and NOx emissions by about 80 tons per year, in addition to reductions of hydrocarbons and toxic compounds in both vapor and condensed phases;

The lower sulfur diesel makes much more significant emissions reductions possible by enabling high-efficiency catalytic after-treatment of diesel engine exhaust; with these after-treatment technologies, emissions of diesel PM and NOx can be reduced by 90 percent and in addition, significant reductions of NMHC and CO can also be achieved;

The reduction of the sulfur content of diesel fuel will have a direct benefit for the SIP by reducing particulate sulfate PM_{10} emissions, but most important is the

central role of low sulfur diesel in the success of the on-road heavy-duty diesel vehicle emission standards in achieving the emissions reductions estimated for the SIP;

Implementation of the low sulfur regulation approved herein could have a small net effect on global warming as the production of low sulfur diesel is expected to increase emissions of CO_2; however, the greenhouse effect from diesel production is expected to be substantially offset by the effect of a reduction in CO_2 emissions from the use of low sulfur fuel in diesel engines;

The regulation approved herein should not have any significant adverse impacts on water quality; a direct benefit of the lowering of the sulfur content limit is a reduction of emitted sulfur oxides and particulate sulfate and consequently a reduction of atmospheric deposition of sulfuric acid and sulfates in water bodies;

With a reduction of NOx and diesel PM emissions, there should be a decrease in atmospheric deposition of nitrogen and airborne diesel particles as well as the associated heavy metals, PAHs, dioxins, and other toxic compounds typically found in diesel exhaust;

The additional hydrotreating necessary to reduce the sulfur content of diesel fuel to below 15 ppmw would not significantly change the chemical composition or the physical properties of the low sulfur fuel compared to current diesel fuel; therefore, any release of low sulfur diesel fuel to the environment should have no additional impact on surface water, groundwater, or soil compared to the current diesel fuel;

The reduction in the fuel sulfur content would facilitate the implementation of the RRP and the introduction of the new on-road, heavy-duty diesel engine emission standards; these two programs will significantly reduce ambient levels of primary and secondary diesel PM and Californians' exposure to diesel PM and the associated health risks;

The reduction of heavy-duty diesel vehicle emissions of ozone precursors through the use of low sulfur diesel fuel and exhaust after-treatment systems would make a considerable contribution to the reduction of Californians' exposures to ambient ozone and the related health risks;

The fact that SCAQMD Rule 431.2 will impose a June 1, 2006 compliance date rather than a January 1, 2005 compliance date for its 15-ppmw sulfur content standard for motor vehicle diesel fuel supplied within the SCAQMD when this ARB rulemaking is completed is fundamentally attributable to the SCAQMD Board's decisions regarding the terms of its Rule 431.2 and not to this ARB rulemaking;

In adopting subsection (c)(4) of its Rule 431.2 on September 15, 2000, the SCAQMD Board expected that the ARB would align the state compliance deadline for the 15-ppmw sulfur content standard for vehicular diesel fuel with the deadline to be established by U.S. EPA, no later than June 1, 2006; the SCAQMD did not intend its action to have the effect of precluding the ARB from aligning the state compliance deadline with a federal June 1, 2006 deadline unless the ARB adopted all feasible measures mitigating adverse environmental impacts resulting from the 17-month delay in the SCAQMD's standard;

The results of the operation of SCAQMD Rule 431.2(c)(4) in postponing implementation of the SCAQMD 15-ppmw sulfur content standard for motor vehicle diesel fuel from January 1, 2004 to June 1, 2006 upon enactment of the ARB amendments approved herein do not constitute significant adverse environmental impacts associated with the ARB amendments approved herein;

WHEREAS, the Board further finds that:

Refiners will meet the 15-ppmw sulfur limit by increasing their hydrotreating capability and this additional processing could have adverse environmental impacts through increased emissions of NOx, PM, CO, and SO_2; the requirements of the CEQA and the permit requirements of air pollution control districts are expected to substantially mitigate such impacts;

Construction of refinery equipment needed for compliance with regulations approved herein could result in temporary emissions from heavy-duty equipment and disruption of the soil, including the generation of dust;

There are no feasible mitigation measures or alternatives available to the Board which would further substantially reduce the above potential adverse impacts of the proposed regulations while at the same time providing the substantial overall public health benefit from the emissions reductions noted herein; and

The amendments approved herein will not result in any significant adverse environmental impacts other than those identified in the preceding three paragraphs, and none of those potential significant adverse environmental impacts are associated with the actual distribution, use or dispersal of the diesel fuel expected to be produced in compliance with the diesel fuel regulation amendments approved herein;

WHEREAS, the Board further finds that:

With the exception of the amendments that establish a 15-ppmw diesel fuel sulfur limit, establish a diesel fuel lubricity standard, and set "equivalent limits" in the regulation limiting the aromatic hydrocarbon content of vehicular diesel fuel, the amendments approved herein are not expected to have any economic impact;

The approved amendments to the California diesel fuel regulations are not expected to have any impact on the ability of California to produce and supply adequate quantities of diesel fuel to the California market;

ARB staff estimates that the overall cost of reducing the sulfur content of diesel fuel and meeting the minimum lubricity specifications will be about three cents per gallon of diesel with about 0.6 cents per gallon of this cost attributed to the lubricity standard; however, these costs may be reduced by some unquantifiable amount by the additional flexibility provided to refiners and importers using the "equivalent limits" provision in the aromatic hydrocarbon content regulation;

Most of the cost to refiners to reduce diesel fuel sulfur levels will be incurred as a result of the low sulfur diesel fuel regulations already adopted by the U.S. EPA and the SCAQMD which effectively apply to about 75 percent of the diesel fuel used in the state; the amendments adopted herein would extend the requirement for the use of low sulfur fuel to the approximately 25 percent of the state's total diesel fuel consumed by off-road diesel vehicles and stationary engines outside the SCAQMD;

While the California diesel fuel standards will also apply to off-road and stationary engine applications, fuel costs for these users have historically been comparable to surrounding states even though diesel fuel in those states has not had to meet the same standards as California diesel fuel;

Nationally, the federal low sulfur requirement is expected to increase the cost of diesel fuel by about four to five cents per gallon with the difference between the California costs and the federal costs due to California refineries being more complex than national refineries, and therefore in less need of modifications to produce low sulfur diesel fuel;

Using a computable general equilibrium (CGE) model of the California economy, ARB staff estimated that the cumulative impact of the regulations adopted herein could be expected to increase fuel costs to diesel end users in California by up to about $110 million per year in 2007; this is not expected to have a significant impact on the overall California economy; and

Staff's evaluation of specific impacts to the petroleum, transportation, and agricultural sectors of the California economy shows that for the refinery sector, the production of low sulfur diesel fuel will likely require capital investments of from $170 to $250 million dollars for equipment; for the agricultural sector, the use of low sulfur diesel fuel could increase operating costs by 0.05 percent; and for the transportation sector, the use of low sulfur diesel fuel could increase typical truck operating costs by 0.6 percent; these are not expected to be significant adverse economic impacts;

WHEREAS, the Board further finds that:

The regulations approved herein will not affect the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within the State of California, or the expansion of businesses currently doing business within the State of California; a detailed assessment of the economic impacts of the proposed regulatory action can be found in the Staff Report (Initial Statement of Reasons or ISOR);

Since most of the approved amendments are not designed to reduce emissions, but to facilitate the effective operation of diesel exhaust emissions control systems, there is no cost-effectiveness value that can be assigned to the amendments *per se*; and

There is no alternative considered by the Board that would be more effective in carrying out the purpose for which the regulations are proposed or would be as effective and less burdensome to affected private persons.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the adoption of or amendments to sections 2281, 2282, 2284, 2285, 2701, and section 1961(d) of title 13, and section 93114 of title 17, California Code of Regulations, as set forth in Attachment A hereto, with the modifications described in Attachment C hereto, and approves the amendments to the "California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles" as set forth in Attachment B hereto.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to transmit the regulations actions approved herein to the Environmental Policy Council with the recommendation that the Council determine that there will be no significant adverse impact on public health or the environment, including any impact on air, water or soil, that is likely to result from the change in diesel fuel that is expected to be implemented to meet the California diesel fuel regulations approved herein; if the Council does not make such a determination, the Executive Officer shall schedule a hearing for the Board to further consider the regulations approved herein prior to final adoption.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to incorporate the modifications described in Attachment C into the amendments contained in Attachment A, with such other conforming modifications as may be appropriate, and then (subject to the following paragraph) to adopt the modified amendments, after making the modified regulatory language available for supplemental public comment for a period of at least 15 days as required by Government Code section 11346.8, provided that the Executive Officer shall consider all written comments regarding the modifications as may be submitted during this period, shall make modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if she determines that this is warranted.

BE IT FURTHER RESOLVED, that if the Executive Officer satisfactorily resolves with affected refiners issues regarding preexisting certified formulations that were to be addressed in the addition of subsection 2282(g)(2)(A)5., title 13, California Code of Regulations, she shall delete the addition of that subsection in the text distributed for supplemental public comment, and from the Final Regulation Order for this rulemaking.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to include in the rulemaking file for this rulemaking the environmental assessments presented to the Environmental Policy Council regarding California diesel fuel.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to conduct a technical assessment to determine whether a more stringent lubricity standard – HFRR maximum WSD of 460 microns or a more appropriate standard – to protect advanced technology fuel systems should be implemented on the same schedule as the 15-ppm sulfur limit for diesel fuel, and report back to the Board by 2005 with the results of the technical assessment and any appropriate recommendations.

BE IT FURTHER RESOLVED, that if, by the time the Executive Officer is prepared to take final action on the amendments approved herein, the Executive Officer determines that ASTM has finally approved the HFRR lubricity standard of a maximum WSD of 520 microns for diesel fuel for inclusion in the D-975 Standard Specification for Diesel Fuel Oil, and that DMS will be beginning to enforce that lubricity standard pursuant to section 4143, title 4, California Code of Regulations, the Executive Officer may delete proposed section 2284, title 13, California Code of Regulations, and references thereto, from the Final Regulation Order.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to submit the ultimately adopted amendments to the U.S. EPA as a revision to the California SIP.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to report to the Board on the sulfur content of diesel fuel supplied to locomotives and marine vessels in the state, and an evaluation of the appropriateness and feasibility of the State of California imposing a 15 ppmw sulfur content standard on diesel fuel supplied to locomotives and marine vessels.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to report to the Board by the end of 2003 with a summary of the pertinent information presented at the alternative diesel fuel symposium to be conducted August 19 and 20, 2003, and recommendations on what regulatory actions if any should be pursued regarding these fuels in light of that and other relevant information.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to report to the Board, within one year of the effective date of the amendments approved herein, on the number of refiners and importers using the designated equivalent limits being added

in amended section 2282(h), title 13, California Code of Regulations, the volume of diesel fuel sold subject to those limits, and the estimated impact of use of those limits on emissions.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to work with U.S. EPA in exploring the feasibility of moving toward a single set of diesel fuel standards that fully preserve the emissions benefits of the existing California program and its competitive position, and to report back to the Board on these efforts as appropriate.

I hereby certify that the above is a true and correct copy of Resolution 03-17, as adopted by the Air Resources Board.

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Alexa Malik, Clerk of the Board

Resolution 03-17

July 24, 2003

Identification of Attachments to the Resolution

Attachment A: The Proposed Regulation Order attached as Appendix A to the Staff Report: Initial Statement of Reasons, release date June 6, 2003.

Attachment B: Proposed amendments to the California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as attached as Appendix B to the Staff Report: Initial Statement of Reasons, release date June 6, 2003.

Attachment C: Staff's Suggested Modifications to the Original Proposal, as made available at the July 24, 2003 hearing.