

**Proposed Regulatory Concepts for the Air Quality Guidelines for the Alternative and Renewable Fuel and Vehicle Technology Program and the Air Quality Incentive Program**

Note: This document contains regulatory concepts for the AB 118 Air Quality Guidelines. This document does not contain draft regulatory language. These concepts describe the proposed analysis that must be conducted by the funding agency prior to selecting and funding projects. These regulatory concepts include commentary, noted in *italics*, which describe the intent of the provisions.

The purpose of this regulation is to meet the requirements of AB 118 (Statutes of 2007), the California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007 Section 44271(b). As directed, the Air Resources Board (ARB) must develop guidelines for both the Alternative and Renewable Fuel and Vehicle Technology Program and the Air Quality Improvement Program to ensure that both programs meet the following criteria:

- (1) Activities undertaken pursuant to the programs complement, and do not interfere with, efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminant emissions.
- (2) Activities undertaken pursuant to the programs maintain or improve upon emission reductions and air quality benefits in the State Implementation Plan for Ozone, California Phase 2 Reformulated Gasoline standards, and diesel fuel regulations.

Staff is proposing to incorporate greenhouse gas (GHG) emissions as a criteria for evaluating projects to ensure that projects funded under these programs complement and do not interfere with the state's efforts to meet its GHG reduction targets required by the California Global Warming Solutions Act of 2006 (AB 32). ARB has the responsibility to harmonize activities pertaining to GHG emission reduction activities. Since the intent of AB 118 is to reduce GHG emissions from the transportation sector, staff believes that incorporating GHG emissions into this regulation will further advance the goals of AB 32.

Staff is proposing to incorporate the full fuel cycle analysis to ensure projects are consistent with state climate change policy and the Low Carbon Fuel Standard (LCFS) for both vehicle and fuel projects. This regulation will incorporate by reference methodology and fuel evaluation processes that will be considered by the Board in late 2008 as part of the LCFS regulation. As the LCFS regulation is developed, the impact on this regulation will be established.

Staff believes that, in most cases, the analysis required by this regulation will be conducted up front by the funding agency as part of the development of funding targets.

## Applicability

The analysis required by this regulation applies to all proposed projects as listed below:

1. Vehicle and equipment projects.
2. Fuel projects.
3. Research projects involving the construction of infrastructure that triggers existing permitting or licensing requirements or research projects involving a fuel supply stage with the intent to sell the fuel.

The analysis required by this regulation does not apply to:

4. Workplace training.
5. Research projects, excluding those identified in item 3, above.
6. Demonstration projects of technologies not to be sold or leased and designed to evaluate air quality impact data. To qualify for this exemption, the air quality impact data must be provided to the funding agency.

*For the projects that are not subject to the analysis, there are no direct air quality impacts, so the analysis required by the regulation is unnecessary.*

## Requirements

### Vehicle and Equipment Projects-

*The regulation would require a two-step approach for evaluation of vehicle and equipment projects. The first step is an analysis comparing the certified/verified emissions of baseline vehicles/equipment with those of the proposed new vehicle/equipment. The second step is a comparison of the new vehicle-fuel pathway to the baseline vehicle-fuel pathway based on full fuel cycle analysis. This second step is only necessary for projects where the baseline and replacement vehicles use different fuels. Additional provisions (#3 and #4) are provided to allow for additional flexibility for evaluation of projects.*

1. Funded vehicles/equipment must have air pollutant emissions less than or equal to those of the vehicle/equipment being replaced to be eligible. Determining the emissions of the baseline vehicle and the new vehicle must be done accordingly:
  - a. New vehicle purchase- The baseline vehicle emissions are the current model year emission standard. The new vehicle emissions are the emission standards of the vehicle to be purchased.
  - b. Vehicle retrofit- The baseline vehicle emissions are the emission standards of the current vehicle without the retrofit. The new vehicle emissions are the emissions of the vehicle with the retrofit installed.

- c. Vehicle replacement- The baseline vehicle emissions are the emission standards of the vehicle being replaced. The new vehicle emissions are the emission standards of the vehicle to be purchased.

*This methodology is similar to the established methodology being used in the Carl Moyer Program.*

2. Funded vehicles/equipment must have vehicle-adjusted average fuel carbon intensity (carbon intensity) values that are equal to or less than the vehicle-adjusted carbon intensity of the vehicle/equipment being replaced.
  - a. The vehicle-adjusted carbon intensity is determined by using the methodology, carbon intensity, and vehicle drivetrain adjustment factors defined by the LCFS, when adopted by the ARB.
  - b. With the approval of the funding agency, projects with a known, dedicated fuel source may use custom values instead of the averages provided in the LCFS, when adopted by the ARB.

#### Additional provisions

3. Emerging technologies, e.g. technologies that have not been certified or verified, are eligible for funding as long as a “weight of evidence” demonstrates no emissions disbenefit. The “weight of evidence” can include, but is not limited to:
  - a. test data
  - b. engineering specifications
  - c. scientific studies on pollutant emissions for the emerging technology

The “weight of evidence” must be submitted by the applicant to the funding agency and evaluated by the funding agency prior to funding.

*AB 118 is intended to fund a broader range of technologies than the Carl Moyer Program and Proposition 1B Bond. Staff believes it is necessary to allow funding of emerging technologies that may not be certified or verified. However, the regulation will require assurance (“weight of evidence”) that these technologies will not increase emissions in order to satisfy the requirements of HSC 44271(b). The “weight of evidence” will need to be evaluated by the funding agency prior to funding. The evaluation may be done in consultation with other agencies with expertise in the technology. Emerging technologies are one scenario where the analysis required by this regulation would take place during the project review process.*

4. Lack of certification or verification standard for a given pollutant cannot preclude a technology from being funded. Determining vehicle/equipment emissions applies only to pollutants for which the technology has a certification or verification standard.

*The purpose of this provision is to recognize that some technologies are only certified/verified for one pollutant. For example, a retrofit may only be verified for PM reductions but is not disqualified for funding because it has not been verified for NOx, ROG, etc.*

### Fuel Projects-

*The regulation would require a three-step approach for evaluation of fuel projects. The first step is an analysis comparing criteria pollutant, toxics, and carbon emissions of the proposed fuel to those of a gasoline or diesel reference standard. The second step is a requirement that all fuels subject to fuel specifications comply with the fuel specification to be eligible for funding. And the third step requires that all projects comply with applicable (federal, state, and local) permitting and licensing requirements. The second and third steps are requirements of existing programs. Staff believes that these existing programs provide adequate safeguards to prevent increases in criteria pollutants and air toxics.*

1. Funded projects must be evaluated using the established full fuel cycle inputs and methodology in the LCFS, when adopted by the ARB. Eligible projects must not exceed the average criteria pollutant and toxic emissions for the fuel pathway when compared to the relative gasoline or diesel reference standard, as defined by the LCFS when adopted by ARB, and must maximize carbon reductions.

*Projects must be analyzed against the fuel, either gasoline or diesel, which the project is displacing.*

2. If a fuel has a fuel specification, it must comply with the fuel specification to be funded. Alternative diesel fuels must be verified through ARB's diesel verification program.

*This provision does not prohibit funding of fuels that do not have a fuel specification. Projects would still be required to comply with the other provisions of this regulation.*

3. Funded projects must comply with applicable local, state, and federal requirements for environmental review and implement any recommended mitigation strategies.
  - a. Projects must follow applicable permitting or licensing, environmental review, emissions offsets, and mitigation strategy requirements as necessary under the Federal Clean Air Act, National Environmental Policy Act, California Clean Air Act, California Environmental Quality Act, California Energy Commission (CEC) regulations for licensing, and local rules and ordinances.

- b. Identification of air quality impacts and mitigation strategies must be resolved at the project level with jurisdictional and regulatory entities that have responsibilities under local, state, and federal laws and regulations.
- c. Prior to receiving the first funding allocation for an infrastructure project, the grantee must commit in writing to implement all air pollution mitigation strategies, if any, recommended by the applicable jurisdictional and regulatory entities.

*It is likely that most fuels projects will include construction of infrastructure of some type. Regulations that require environmental review and mitigation strategies to offset potential air quality and health impacts already exist at the local, state, and federal levels. By requiring the grantee to comply with these existing regulatory requirements, this regulation meets the legislative directive that projects not interfere with efforts to maintain or improve air quality.*

#### Local health impacts-

*Consistent with ARB policy regarding environmental justice, staff is proposing the following language to ensure that localized health impacts are evaluated. This requires the funding agencies to include environmental justice criteria in the funding decisions. For infrastructure projects, the funding agency must include a public process for discussion of environmental justice implications prior to agency approval. For each fiscal year, this discussion would include an analysis of environmental justice for infrastructure projects as a whole.*

ARB and CEC must incorporate criteria for considering and mitigating localized health impacts for all projects funded under the Alternative and Renewable Fuel and Vehicle Technology Program and the Air Quality Improvement Program. This evaluation must be done consistent with state law defining environmental justice (Senate Bill 115, Solis, 1999; California Government Code § 65040.12(c)).

Projects that include the building of infrastructure must be selected by the funding agency in a way which ensures the fair treatment of all Californians, including low-income and minority populations.

1. Projects must be selected and approved for funding in an open and public meeting after consultation with community groups and other interested stakeholders.
2. For each fiscal year, the funding agency must do an analysis of environmental justice implications from infrastructure projects as a whole and provide this analysis in a public staff report or other supporting documentation prior to project approvals.

## **Record Keeping**

The funding agencies will be required to keep records for funded projects to demonstrate compliance with the provisions in this regulation. The records must be made available to the requesting party within 30 days of the written request.