UPDATED INFORMATIVE DIGEST OF ADOPTED ACTION

Sections Affected: Amendments to sections 1968.1, 2030, and 2031, Title 13, California Code of Regulations (CCR), and the certification procedures referenced in the latter two sections, "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for Motor Vehicles Certified for 1994 and Subsequent Model Years," March 11, 1993.

Background: Section 1968.1 was originally adopted by the Board on September 14, 1989. The regulation requires manufacturers to implement new on-board diagnostic systems starting with the 1994 model year. These OBD systems replace systems previously required by section 1968, known as OBD I. Applicability of the OBD II requirements extends to passenger cars, light-duty trucks, and medium-duty vehicles and engines. The regulation specifically requires the implementation of monitoring strategies for catalyst efficiency, misfire detection, evaporative systems, exhaust gas recirculation (EGR) systems, fuel systems, oxygen sensors, secondary air systems, electronic emission-related powertrain components, and others. It further requires that diagnostic information be provided in a standardized format, and that the communication link used to transmit the information be standardized throughout the industry.

In Resolution 89-77, which was adopted at the time the Board approved section 1968.1 for adoption, the Board instructed the ARB staff to provide an update within two years after the adoption of OBD II. Specifically, the staff was directed to advise the Board on the progress of manufacturers in complying with the requirements in the specified time frame and to propose amendments to the regulation deemed necessary based on industry progress and comments.

In September 1991, the ARB held a hearing on the status of OBD II compliance. At that time, it was reported that manufacturers were making significant progress in developing complying monitoring systems. However, in response to concerns raised by manufacturers regarding reliability, and a desire by staff that the regulation be modified to enhance the effectiveness of the regulation and to make the state regulation more consistent with the on-board diagnostic system then being proposed by the United States Environmental Protection Agency (U.S. EPA), the Board approved for adoption amendments to section 1968.1. In Resolution 91-42, the Board directed staff to continue monitoring research and development activities related to implementation of the on-board diagnostic system requirements for low-emission vehicles and to report back to the Board with a recommendation to modify any of the requirements if such requirements are found to be nonfeasible and/or impractical for a significant number of manufacturers, with such reports to include recommendations for further modification of the regulation.

In August 1993, upon receipt of a Petition from Ford Motor Company, the ARB considered and adopted amendments to the regulations that offered compliance relief to manufacturers which in good faith have attempted to comply with the regulations, but which have been unable to certify a fully compliant monitoring system.

As of this date, although many manufacturers have been able to certify and have been offering for sale in California vehicles meeting the OBD II regulation, manufacturers continue to have

problems in developing fully compliant monitoring systems. These problems generally are associated with implementation of enhanced monitoring requirements that are effective with the 1996 or later model years. Specifically, manufacturers have expressed concerns about the OBD II catalyst efficiency requirements for low-emission vehicle applications, and the enhanced monitoring conditions for misfire detection systems.

Adoption of Amendments: The Board approved amendments to the regulation to address these implementation concerns while maintaining the effectiveness of the requirements. Further, the Board approved additional lead time to facilitate any modifications that are necessary to ensure that the revised requirements will be met in-use. The Board approved amendments to address other OBD II implementation concerns as well. Amendments were approved to define more specifically the OBD II tamper resistance requirements and the monitoring requirements for diesel vehicles and engines. Also, additional leadtime was approved for full OBD II compliance on vehicles using alternate fuels. Regarding the latter, for purposes of consistency the Board approved an amendment to the certification procedures for alternate fuel retrofit systems with respect to OBD II system performance. These test procedures are referenced by sections 2030 and 2031 of Title 13.

Separately, the Board approved an amendment that would increase the effectiveness of OBD II systems in detecting small evaporative system leaks, requiring the detection of leaks as small as the equivalent of a 0.020 inch diameter orifice. The improved requirement is to be phased in beginning with the 2000 model year.

Finally, the Board approved a number of amendments to address minor implementation concerns that have been identified through the experience gained in bringing OBD II systems to production, and to further clarify the regulatory requirements.