



## Ships At-Berth Regulation

### The Air Resources Board Will Recognize Good Faith Efforts of Vessel Fleets to Comply During Transition Period

This regulatory advisory describes steps the Air Resources Board (ARB) is taking to assist vessel fleets with the transition to the 2014 compliance requirements under the Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port (Regulation). California's ports, terminals, and most of the vessel fleets have made substantial investments in new equipment and practices to transform their operations and meet the requirements of the Regulation. These vessel fleets need some flexibility during the transition period from January 1-June 30, 2014, to implement the new practices. The overall goal of this action is to recognize good faith compliance efforts while ensuring that emissions reductions required by the Regulation are achieved in a timely manner to provide critical public health benefits for communities near ports.

This Advisory does not change the requirement that vessel operators utilize shore power if both the vessel and berth are equipped to do so. It does not provide consideration for vessel fleets that have not made good faith efforts. And, nothing in this Advisory modifies the obligations of ports, terminals, and vessel operators receiving grants under the Proposition 1B Goods Movement Emission Reduction Program or the Carl Moyer Memorial Air Quality Standards Attainment Program for installation of the shore power infrastructure.

#### Background

The At-Berth Regulation is intended to reduce emissions of diesel particulate matter (PM) and oxides of nitrogen (NOx) from auxiliary engines on ocean-going vessels while at-berth at California ports. Fleets affected by the Regulation include those composed of container vessels, passenger vessels, or refrigerated cargo vessels. Fleets intending to comply with the Regulation by satisfying the Reduced Onboard Power (Shore Power) Option must satisfy the following two criteria, on a quarterly basis, starting January 1, 2014:

- At least 50 percent of a fleet's visits to a port must satisfy the following limit on engine operation: for each visit, the auxiliary engines on the vessel cannot operate for more than three hours during the entire time the vessel is at-berth (e.g., a shore power visit); and
- The fleet's total onboard auxiliary engine power generation must be reduced by at least 50 percent from the fleet's baseline power generation.

#### Recognizing Good Faith Efforts to Comply

To be able to satisfy these requirements, ports and terminals must install the necessary shore-side infrastructure and fleets must provide vessels able to use shore power prior to the 2014 deadline. ARB staff is aware that some vessel fleets, which have made the necessary investments in vessel shore power equipment as part of their good faith efforts to comply, may not be able to comply with the above requirements that become effective January 1, 2014, due to factors outside their control. With this Advisory, ARB is addressing several factors that may

affect a fleet's ability to comply with the Regulation. These include situations where a berth is not ready to provide shore power by the end of 2013 (and the shift of commissioning activities into 2014), and delays in obtaining shore power equipment for vessels (e.g., transformers and cable reels), from manufacturers. ARB staff is aware of other challenges to fleet compliance, such as labor issues and the need to contract for charter vessels that are equipped to use shore power, but does not believe these merit similar accommodation.

The delays in the availability of the shore power-ready berths have caused fleets to delay the following required actions until well into the first quarter of 2014: 1) performing safety tests of the shore power equipment on the vessel, commonly referred to as commissioning; and 2) practicing the set-up connection of vessel-side equipment to shore-side equipment, and switching power from the auxiliary engines on the vessel to shore power. The complexity of the process to successfully use shore power requires practice by the parties involved to consistently and safely achieve quick connection and disconnection of shore power equipment. This practice is important to satisfy the Regulation's three to five hour (based on the type of power transfer) operating limit for auxiliary engines for each visit.

While the January 1, 2014 compliance date remains unchanged, ARB will recognize a fleet's good faith efforts to comply with the requirements during a transition period. The criteria to determine if good faith efforts have been made, information that must be submitted to ARB to document good faith efforts, specific relief being provided from the Regulation, and the timing of any potential relief are outlined for each potential situation described below. A vessel fleet may experience more than one of these situations in 2014, and may utilize the relief afforded under each situation it qualifies for, subject to ARB staff's determination that the specific combination still represents a good faith effort to fully comply with the Regulation.

**1. The vessel fleet visiting the port is equipped to receive shore power but the terminal's berth is not ready to provide shore power.**

This scenario applies to fleets which have made good faith efforts to comply such that the fleet is equipped to receive shore power as required by the Regulation, but for reasons beyond the fleet operator's control, the terminal's berth is not ready to provide shore power. To demonstrate its good faith effort, a fleet must prove that it would have complied with the 50 percent shore power visits and the 50 percent power reduction requirements for vessels that called on the port if shore side power had been available. This demonstration must be made for each quarter that shore side power is not available at the berth.

In recognition of the fleet's good faith efforts, visits made by a shore power-ready vessel to a berth not yet capable of providing shore power (i.e., one that has not completed load-bank testing) will count towards compliance with the Regulation. That is, the visit will count as a shore power visit. Once the terminal completes load-bank testing for shore power readiness at the berth, the fleet must utilize the shore power infrastructure as required by the Regulation for a vessel's visit to that berth, and this provision will no longer apply.

In order to qualify for relief under this scenario, the fleet operator must provide documentation, at the end of each quarter, showing the schedule of vessels that visited each berth and that these vessels were equipped to receive shore power.

Terminals and ports that do not make shore power available by January 1, 2014 may be subject to ARB enforcement action, which will consider the specific circumstances of each case.

**2. During calendar year 2014, a vessel makes its first commissioning visit to a terminal (one commissioning visit per terminal), and during the visit, the auxiliary engines operate longer than three hours.**

This scenario applies to fleets with vessels that are equipped to receive shore power as required by the Regulation, but for reasons beyond the fleet operator's control, the vessel's first commissioning visit took place on or after January 1, 2014. To show good faith, a fleet must demonstrate that as of January 1, 2014, the fleet can comply with the 50 percent shore power visits and the 50 percent power reduction requirements pursuant to the Regulation. In recognition of the fleet's good faith efforts, the first commissioning visit made by a vessel to a terminal in 2014, regardless of the time necessary to connect or disconnect to shore power, will count towards compliance with the Regulation (i.e., the first commissioning visit will count as a shore power visit). This good faith provision only applies to the vessel's first commissioning visit per terminal.

In order to qualify for relief under this scenario, a fleet operator must provide documentation that the fleet is equipped to satisfy the Regulation as of January 1, 2014, as well as a list of the vessels in the fleet that are to be commissioned in 2014 and the anticipated date each vessel is to be commissioned. Documentation must be provided at the end of each quarter to verify that the scheduled commissionings have occurred.

**3. During the first and second calendar quarter of 2014, a vessel uses shore power but fails to meet the three/five-hour time limit for connecting or disconnecting shore power.**

This scenario applies to fleets which demonstrate that as of January 1, 2014, the fleet is equipped to comply with the 50 percent shore power visits and the 50 percent power reduction requirements pursuant to the Regulation. For the first and second calendar quarters of 2014, the fleet is allowed to exceed the three-hour/five-hour time limit, but must show that averaged over calendar year 2014, an actual power reduction of 50 percent or greater was achieved. The 50 percent shore power visits and 50 percent power reduction requirements remain in effect for the third and fourth quarters of 2014.

In order to qualify for relief under this scenario, the fleet operator must provide documentation that the fleet is equipped to satisfy the Regulation and additional information to verify that an overall 50 percent power reduction was achieved for 2014.

**4. During the first and second calendar quarters of 2014, a vessel is unable to use shore power due to delays in receiving shore power equipment and making retrofits to the vessel to utilize the equipment.**

This scenario applies to fleets that can demonstrate they took the necessary actions prior to July 1, 2013 to procure and install the equipment needed to modify their vessels to use shore power, but have experienced delays in receiving/installing the equipment for certain vessels. The same requirements apply to vessels owned by the fleet operator and to charter vessels contracted for service by that operator. To demonstrate good faith, a fleet must show that: (a) all necessary equipment to enable the vessels to connect to shore power was ordered prior to July 1, 2013; (b) the modifications to the vessels were scheduled prior to July 1, 2013; and (c) vessel modifications to use shore power sufficient for full compliance with the Regulation will be completed no later than June 30, 2014. In recognition of the fleet's good faith efforts, visits from vessels affected by equipment delays will count towards as shore power visits until the vessel is so equipped or June 30, 2014, whichever occurs first.

In order to qualify for relief under this scenario, the fleet operator must provide documentation of equipment purchases specific to each vessel, work orders for construction of shore power boxes or modifications to each vessel, and a demonstration that, with the equipment installed, the fleet will be able to fully satisfy the requirements of the Regulation for the subsequent quarters in 2014.

**5. During the first and second calendar quarters of 2014, vessels are using an alternative technology (while that technology is undergoing in-use emission testing) to help comply with the At-Berth Regulation.**

As of January 1, 2014, fleets may use an alternative technology for compliance with the Regulation, but need to switch compliance options to the equivalent emission reduction option. No alternative technology has yet satisfied the requirements of the Regulation to establish the technology's control efficiency for vessel auxiliary engines, but one is entering the evaluation process. There are two phases for the emission reduction evaluation process following ARB approval of a test plan: initial emission testing and in-use emission testing.

Fleets that use an alternative technology covered by an ARB-approved test plan, with a successful demonstration in the initial emission testing phase, will receive provisional credit towards compliance with the Regulation for emission reductions achieved by using that alternative technology to reduce PM and NOx emissions from vessels during the in-use emissions testing phase. However, if the alternative technology does not successfully demonstrate the required performance during the in-use testing process by June 30, 2014, the provisional credit for emission reductions will be cancelled at that time and the fleet will be required to make up the emission reductions required under the Regulation since January 1, 2014. The ability to claim provisional credit during in-use emission testing of alternative technology will expire June 30, 2014.

In order to qualify for relief under this scenario, the fleet operator must provide documentation of the fleet's shortfall in satisfying the requirements of the At-Berth Regulation, and provide information on the alternative technology, including the name of the technology, a description of the technology, confirmation of ARB approval of the test plan and successful initial emission testing, and the schedule milestones for the technology to complete ARB's emission reduction evaluation process by June 30, 2014.

**Reporting Compliance Actions Taken Under this Advisory**

To qualify for temporary relief from specified At-Berth Regulation requirements described in this Advisory, an affected vessel fleet operator must report, under penalty of perjury, specific information to ARB through [ShorePower@arb.ca.gov](mailto:ShorePower@arb.ca.gov). Information for the submittal, including how and when to report to ARB, will be made available by January 10, 2014 at: <http://www.arb.ca.gov/ports/shorepower/shorepower.htm>

**Failure to Comply**

Fleets that fail to fully comply or to demonstrate good faith efforts pursuant to this Advisory may be subject to enforcement action and penalties. Fleets that make good faith efforts as described in this Advisory, but are not in compliance with the At-Berth Regulation requirements by the dates outlined above, may be subject to enforcement action and penalties.

**For Additional Information**

Please visit <http://www.arb.ca.gov/ports/shorepower/shorepower.htm>, contact ARB staff at [ShorePower@arb.ca.gov](mailto:ShorePower@arb.ca.gov), or call Jonathan Foster at (916) 327-1512.