SENATE COMMITTEE ON ENVIRONMENTAL QUALITY Sacramento, California February 22, 2017

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Good morning. I'm Kurt Karperos, Deputy Executive Officer for the California Air Resources Board.

To follow Dr. Frank comprehensive background and history of the Clean Air Act and its waiver and authorization provisions, I'll provide a brief overview of CARB's mandates, the state's air quality policy portfolio, and our path forward.

CARB's Mandates

The Legislature established CARB in 1967 as the first air agency of its kind, predating the U.S. EPA. Over our 50 year history, California has been at the forefront of air pollution control. Today, the Legislature has tasked CARB with three key mandates:

- achieving health-based air quality standards for ozone, particulate matter and other air pollutants under the state and federal Clean Air Acts;
- reducing public exposure to toxic air contaminants such as diesel particulate matter;
- and reducing greenhouse gas emissions to 1990 levels by 2020, with further reductions to 40 percent below 1990 levels by 2030.

In my testimony today, I'll focus on the work to meet federal air quality standards. However, it's important to note we have been working develop programs that simultaneously reduce smog-forming, toxic diesel particulate, and greenhouse gas emissions.

The Clean Air Act directs U.S. EPA to set health-based standards and review them regularly to ensure they are based on the latest science and remain health-protective. This has led U.S. EPA to set a series of increasingly stringent health-protective standards over time. CARB's current planning focus is on meeting the federal ozone standard and the annual 2.5 micron particulate matter standard. California has a long and successful history of meeting these health-based standards. Of California's 19 areas that once exceeded either the 1-hour or original 8-hour ozone standards, only 4 still exceed those standards today.

Still the South Coast and the San Joaquin Valley are the two areas of the state that face the nation's most critical air quality challenges. These regions are the only two areas in the nation with an extreme nonattainment classification for the federal ozone standards and also record some of the nation's highest PM2.5 levels.

However, even these areas have seen significant progress. The Valley now meets the 1-hour ozone standard and is making significant progress towards attaining the 8-hour ozone standards. Fine particle pollution levels in the Valley have also dropped 20 percent since 2001.

The South Coast once measured 1-hour ozone values above the standard on over 200 days per year. Today it has dropped to less than 20. Similarly, the number of days over the 8-hour standards has been cut in half since 1990.

This progress has occurred at the same time that California's population has increased by over 25 percent, and the state's economy has continued to grow and prosper. Our economy is now the world's sixth largest, and job growth in the state has outpaced the national rate. This while pursuing the nation's most aggressive air quality and climate policies.

Looking forward, U.S. EPA estimates that achieving the new 70 parts-perbillion ozone standard would save Californians an estimated 0.4 to 1.4 billion dollars per year when accounting for both the costs of reducing emissions and the avoided costs of healthcare, lost work days and low productivity, and other impacts of pollution.

U.S. EPA's estimates for attaining the annual PM2.5 standard are even more substantial, showing a net benefit in 2020 of at least 3.3 billion dollars in California, with over 90 percent of the benefits coming from reduction in premature deaths.

With its health-based air quality standards, meaningful deadlines, and requirements for comprehensive plans, the Clean Air Act, the cooperative federalism that Dr. Frank described, has been the key tool for achieving this combined air quality and economic success.

State's Air Quality Policy Portfolio

Going forward, collective efforts involving the legislature, air districts, environmental groups, and regulated industries will be critical to continue to build on this success. Achieving California's multiple environmental goals will require comprehensive actions to transform the technologies and fuels we use, the design of our communities, and the way we move people and freight throughout the state. In partnership with the legislature, these efforts will continue California's leadership role both nationally and internationally.

As Dr. Frank outlined, while U.S. EPA has primary authority over new engines for cars, trucks, locomotives, and some farm and construction equipment, the Clean Air Act allows California to seek a waiver from U.S. EPA to enact more stringent emission standards for these large pollution sources. Many, though not all, of CARB's activities rely on existing waivers. And this authority will continue to be critical to California's future progress toward more healthful air.

Next month, CARB will consider adoption of a mobile source strategy, which outlines a coordinated suite of actions to meet federal air quality standards, and also achieve greenhouse gas emission reduction targets, reduce petroleum consumption, and decrease toxic health risks from transportation emissions. The mobile source strategy maps out a regulatory strategy for multiple planning efforts currently underway in response to state and federal directives. These efforts include:

- The state implementation plan strategy, which includes elements of the mobile source strategy necessary to meet Clean Air Act requirements and to achieve the 80 percent reduction in smog and particulate-forming emissions.
- The 2030 target scoping plan update charts the state's pathway to achieve the 2030 greenhouse gas reduction target in SB 32. These

actions will also establish a trajectory for meeting the longer-term 2050 target.

- The short-lived climate pollutant reduction strategy establishes a plan to reach the goals for reduction of black carbon, methane, and fluorinated gases as directed in SB 605 and SB 1383.
- Finally, the California sustainable freight action plan is a multi-agency effort to improve freight efficiency, transition to zero-emission technologies, and increase the competitiveness of California's freight system.

Our Path Forward

Together, we have accomplished a great deal. But we know there is more work to be done. Approximately one-third of California's 38 million residents still live in communities that exceed the federal ozone and PM2.5 standards. And the public's exposure to toxic diesel particulate matter is too high, especially in disadvantaged communities near freight facilities such as ports, rail yards, and distribution centers. Further, it's critical that CARB ensures that regulated vehicles and nonroad engines and equipment are fully compliant with applicable standards from the time they are first sold and throughout their life as they are driven and operated in the state. The Volkswagen incident has highlighted the need for us to remain alert and to vigorously administer, and as needed modify, our certification and compliance programs to discover quickly any situations that can have significant adverse air quality impacts.

While the State may not receive the same degree of collaboration in the near-term—as Dr. Frank explained—we anticipate that our existing waivers, those already granted for us to enforce California emission standards will not be significantly compromised. Consequently, California's current, on- and off-road vehicle emission regulations–which set standards many years into the future–should remain in effect.

The actions in the plans I spoke of previously—namely the state implementation plan and mobile source strategy, the scoping plan update, the short-lived climate pollution strategy, and the sustainable freight action

plan—will keep California on the path toward healthful air and national and international climate leadership.

The scientific, technical, and regulatory capacity of CARB and the air districts, developed through decades of implementing the Clean Air Act will provide the foundation for moving forward and the clear arguments for future waivers. And partnerships with states that can opt in to California's vehicle standards will continue to provide national support for California's actions.

California's Clean Air Act, adopted by the legislature in 1988 became a model for the amendments to the federal Act in 1990. Today, the California legislature's leadership in integrating the State's climate and air quality efforts, we should expect, will be recognized broadly as the path toward the future.

From the waiver authority first given in the 1967 Air Quality Act to today's zero emission vehicle program with its growing numbers of ZEVs nationally and internationally, California has lead the way. We are fully committed to

continuing to work with you to provide the needed leadership and address our unique air quality challenges.

Thank you. I would be happy to answer any questions you may have.