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President

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Via web: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Mr. David Mehl
Mr. Ryan McCarthy
Air Resources Board
1001 I Street,
Sacramento, CA 95814

Subject: Comments on ARB's Proposed Short-Lived Climate Pollutant (SLCP) Reduction Strategy (April, 2016)

Dear Mr. Mehl and Mr. McCarthy:

The Western States Petroleum Association (WSPA) is a trade association that represents 25 companies that explore for, develop, refine, market and transport petroleum and petroleum products in California and the West. Many of our comments on ARB's draft Short Lived Climate Pollutant (SLCP) Reduction Strategy (September, 2015) are still relevant to this Proposed SLCP Reduction Strategy. The following comments address additional issues relevant to ARB's Proposed Short-Lived Climate Pollutant Reduction Strategy (April, 2016). We look forward to ARB's responses to both letters.

WSPA is profoundly concerned that ARB has not responded to our letters on this and other topics. We are further concerned that the SLCP is not sound environmental policy and does not meet foundational AB 32 objectives, including minimizing leakage and selecting measures that are technologically feasible and cost effective. The Proposed Strategy does not provide a technical basis for the SLCP targets or transparent cost of carbon evaluation, nor does it fit this program into the overall context of the state's existing GHG and air pollution inventories.

Program Objectives and Overall Approach

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The Proposed Strategy provides the impression that SLCPs are more important than CO2 as a global warming pollutant and therefore there is an urgent need to take action to reduce SLCP emissions. To the contrary, the Intergovernmental Panel on Climate Change (IPCC) 2013 Working Group I, Fifth Assessment Report of the Intergovernmental Panel on Climate Change Summary for Policymakers states that CO2 is more important than SLCPs. The rush to action on SLCPs is unjustified and premature given the lack of state data and technical pathways.

ARB's Proposed Strategy would substantially overlap with implementation of AB 32, imposing new costs without environmental results and undermine the state's goal to provide national and international leadership on climate policy. The Proposed Strategy first and foremost sets pollutant specific targets or caps for methane and hydrofluorocarbons, which are defined in state law as GHGs and are already regulated under the Cap and Trade program pursuant to AB 32. Respected economists and ARB itself have commented on the unintended consequences of setting a cap within a broader based cap.

In a letter to the Bay Area Air Quality Management District (BAAQMD) dated September 17, 2015, ARB Executive Officer Richard Corey states that establishing a regional cap under a state cap is not only cost inefficient, but would actually promote leakage within the state, thus negating the potential benefits of a regional cap. The Proposed Strategy envisions a methane cap which is a sub cap for a pollutant already subject to the statewide cap that covers all GHGs. The Proposed Strategy also contemplates regulating some of the same sources that are already regulated under Cap and Trade. The rationale for avoiding two caps on the same pollutant and same sources is the same for a regional cap as it is for the SLCP caps. Following is the relevant excerpt from Mr. Corey's letter:

A local limit on GHG emissions at Bay Area refineries or other facilities subject to the Cap and Trade program could have the following undesirable consequences:

- Failing to reduce statewide GHG emissions,
- Increasing GHG emissions outside of the local jurisdictions,
- Increasing the cost of statewide GHG emission reductions, and
- Shifting business activity to outside of the local jurisdiction.

The goal in the Proposed Strategy for methane also overlaps and conflicts with federal goals. Given that ARB is already regulating all of these pollutants under other regulatory programs, the Proposed Strategy is duplicative and will result in higher costs to the state's economy without environmental benefit. WSPA proposes that ARB eliminate any SLCP regulatory overlap either by exempting the sources that would be regulated twice or by avoiding overlapping caps.

We remain concerned that ARB has provided little additional detail about the actual control measures it would implement to achieve the administration's aspirational SLCP emission reductions targets. ARB explores scenarios for achieving reductions in the Economic Assessment (Appendix D). Most if not all of these scenarios are made viable by reliance on Low Carbon Fuel Standard (LCFS) credits or federal RIN credits. ARB cannot build a sustainable, economically viable program on the back of other programs whose future is very uncertain. The Economic Assessment does not provide cost

effectiveness information in terms of cost per ton of carbon. In the absence of more complete information and analysis, ARB must not move forward. To do so is to both risk the state's reputation for leadership and marginalize sound technical planning. The state is also sacrificing stakeholder engagement as we are relegated to commenting only on conceptual measures and educated guesses about the feasibility and cost effectiveness of those measures.

WSPA also recommends that ARB reconsider the command and control approach envisioned in the Proposed Strategy, which would pre-empt opportunities for cost-effective incentive-based SLCP emission reductions in California and other jurisdictions. These outcomes would be barriers to achieving additional reductions of SLCP emissions and would discourage other jurisdictions from following California's lead.

SLCP Emissions Inventory

We support ARB's efforts to improve the SLCP inventory. We also appreciate that this document attempts to leverage mature and developing programs at the federal, state and local levels which, while designed to reduce other greenhouse gas and criteria pollutant emissions, will also reduce emissions of targeted SLCPs. However we are concerned that ARB is only able to provide inventory information for two SLCP pollutants in Appendix A – SLCP Inventory. It is critical that ARB accurately inventory SLCP emissions from various sources, thoroughly quantify both direct and indirect SLCP emission reductions from existing programs and evaluate the incremental benefit of potential new measures *before* it sets goals. It is not possible to estimate the state's ability to reach a goal, nor to identify the most cost effective options if the state does not first inventory emissions. The European Union's (EU) pilot of its Emissions Trading System failed largely due to the lack of an emissions inventory. Ultimately, the success of California's climate programs depends upon avoiding duplication of effort, potential cross-program conflicts and wasteful expenditure of resources by the public and the private sector.

Without an accurate SLCP inventory the measures identified by ARB may not meet the statewide targets in the Proposed Strategy. The targets were developed from international estimates proposed by the IPCC (page 19). Basing California goals on international targets denies the advanced level of energy efficiency and industrial optimization that we have already achieved. In addition despite the IPCC's recommendation, it is informative that none of the other key international climate policy leaders have adopted goals for black carbon. Black carbon is not regulated as a GHG in Canada, the European Union nor Australia. The EU explicitly considered regulating it but chose not to because it was recognized that it is covered in air pollution regulation.¹

ARB states on page 92 that the Proposed Strategy "fits within a wide range of ongoing planning efforts throughout the State to advance economic and environmental priorities." Thus it would behoove ARB to ensure that its efforts are informed by and not duplicative of other plans and programs it identifies in this document. ARB also states in the Proposed Strategy on Page 12 that "...the State will only realize the full benefits of strong action to reduce SLCP and CO2 emissions if others take committed action, as well." However, unless ARB develops an accurate inventory of

¹ http://ec.europa.eu/clima/policies/international/paris_protocol/pollutants/index_en.htm

SLCP emissions before formalizing a reduction strategy, this program could undermine opportunities for coordinated international efforts to stabilize global warming below 2°C.

Focus on Uncontrolled or Minimally Controlled Sources

ARB acknowledges that the current regulatory trajectory for mobile and stationary combustion sources will deliver dramatic reductions in black carbon emissions such that other uncontrolled or minimally controlled sources will become “an increasingly important fraction of the black carbon inventory.” (Proposed SLCP Reduction Strategy, page 44) At a conceptual level, it makes sense for ARB to focus on these sources for future reductions. However, we encourage ARB to reconsider the “complementary measures” approach emphasized in this Proposed Strategy. Separate command and control policies only detract from existing incentive-based programs targeting the same sources, add to the lack of regulatory transparency and increase regulatory burden. For example, some of the sources at issue, such as dairy operations, represent potential offsets under the Cap and Trade program. If these sources are prospectively subject to sector-specific regulatory requirements, their emissions would no longer be considered “additional” under current and future offset protocols. ARB’s proposed approach would squander already limited cost containment opportunities for Cap and Trade regulated entities and could sacrifice a more cost-effective means for targeted sources to achieve the desired emission reductions.

We also must note that the economic scenarios incorporate LCFS credit revenue in the dairy methane analysis. By shifting the credits from Cap and Trade to LCFS, ARB is simply raising the cost of these reductions to the economy. For example, cost of credits in LCFS is over 10 times higher than the Cap and Trade cost of credits.

Technology Bias

WSPA generally supports ARB’s goal to improve freight handling efficiency at ports and in transportation corridors as a means of reducing black carbon emissions. We remain concerned, however, that the Proposed Strategy reflects an inherent bias against liquid fuels and engines that will lead to investments in technologies that may not be fit for purpose. In our September, 2015 letter we commented that the power and range requirements for these applications may impact the feasibility of alternative technologies such as electrification. Whether in this SLCP Strategy, the Sustainable Freight Strategy or the State Implementation Plans, ARB must first address the technical feasibility and cost-effectiveness of deploying alternative technologies in this sector. Investments in lower emissions goods movement technologies should be optimized to achieve the dual goals of capturing additional emission reductions and meeting minimum performance requirements in target applications. Inefficient spending with a bias against diesel or gasoline engines could sacrifice both outcomes and thus is not in the State’s best interest.

Linkage Between Proposed Measures and Emission Reduction Targets

The Proposed Strategy implies that the SLCP emission reduction targets identified for mobile sources and the oil and gas sector will be accomplished by current state and local regulatory initiatives. These measures are discussed in the document as works in progress (existing programs, proposed rules such

as ARB's GHG Standards for Crude Oil and Natural Gas Facilities, and prospective plans such as ARB's Sustainable Freight Strategy) and are distinguished from new measures characterized as "recommended actions" to further reduce particular SLCP emissions from other sources. For example, one can infer from the document that the Cap and Trade regulation and ARB's pending methane regulation for the oil and gas sector will achieve the full 8 MMT CO₂e reduction target identified for this sector. However, the presentation of this information is opaque and leaves open the possibility that additional measures may be identified in the future to achieve the proposed SLCP targets. In the interest of clarity and transparency, and to facilitate meaningful stakeholder input on the Proposed Strategy, ARB should specifically identify the volume of reductions it expects from specific measures, both existing and planned. Until ARB provides this information, stakeholders will have no assurance that the SLCP goals established in the Proposed Plan are even achievable.

Global Warming Potential Values

WSPA opposes ARB's proposed use of 20-year Global Warming Potential (GWP) values to quantify SLCP emissions, which is inconsistent with other programs including AB 32, that utilize 100-year GWP values. Departing from the current convention will distort comparisons between SLCP and other GHG emissions, leading to policy outcomes that may be at odds with California's statutory goals. By overstating the GWP impacts of SLCPs in this context, the strategy will understate the costs of carbon, making cost effectiveness comparisons impossible relative to the other plans and regulatory regimes under AB 32. This action would also add unnecessary complexity to the task of quantifying, tracking and coordinating SLCP emission reductions across programs and jurisdictions and could undermine California's leadership role on climate policy. WSPA supports continued use of 100-year GWP values for all GHGs, including SLCPs, consistent with existing state, federal and international assessments.

Economic Impact and Environmental Analysis

WSPA appreciates that this Proposed Strategy includes limited economic impact and environmental analysis for certain measures, with emphasis on recommended actions for uncontrolled or minimally controlled sources (excepting oil and gas sources which are already highly regulated). While we view this additional analysis as a step in the right direction, in the absence of similar analyses for the full suite of potential measures proposed by ARB, these aspects of the document are substantially incomplete. To the extent similar analyses are being developed for other purposes (e.g., Sustainable Freight Initiative, SIPs, CEC's Integrated Energy Policy Report, the 2030 Scoping Plan Update, implementation of SB 1371, etc.) they should be incorporated into this document so that stakeholders can review and comment on ARB's findings relative to those measures. In addition, and as noted in our prior comments, ARB's command and control policies should be compared to market-based approaches that have been implemented in California and other jurisdictions. Such analyses will be needed to identify and prioritize measures that complement the state's environmental, social justice, and economic objectives.

The environmental assessment should also include a macroeconomic analysis at the statewide level, taking into account both direct and indirect costs and benefits, to characterize the net economic impacts of the SLCP Reduction Strategy. ARB acknowledges on page 101 of the Proposed Strategy

that the proposed measures are transformative for society and the culture of California, but assumes a priori that the proposed measures will yield net societal benefits. In fact, the SLCP emission reduction goals and the pathways ARB proposes to achieve them are fraught with economic uncertainty and should be more rigorously evaluated and peer reviewed before the Proposed Strategy is adopted.

Public Health Assessment

ARB assumes that black carbon emissions are a direct cause of the same health impacts attributed to diesel particulate matter and PM2.5 and that SLCPs in general are a direct cause of premature deaths. On page 121, ARB quotes a World Health Organization report stating that “Since SLCPs contribute to ambient levels of ozone and PM2.5, SCLP [sic] emissions are directly associated with cardiovascular and respiratory diseases...” and that “SLCP emission thus contribute significantly to the more than 7 million premature deaths annually linked to air pollution.” These statements do not support ARB’s conclusions about causal relationships between SLCP emissions and particular health outcomes. For example, we are not aware of any evidence supporting the conclusion that methane emissions are a direct cause of premature deaths. Furthermore, while USEPA has concluded that PM 2.5 “plays a ‘causal’ role in premature deaths and cardiovascular effects, and a ‘likely’ role in respiratory effects” it has not drawn the same conclusions for black carbon. ARB acknowledges this fact on page 122, noting that black carbon is a subset of PM 2.5 and has not been separately evaluated for potential health effects from ambient emissions. The word ‘causal’ can imply direct or indirect effects, but ARB assumes the former when stating that “the scientific community has concluded that diesel and black carbon particulate matter likely have similar adverse effects as PM 2.5.” ARB is inappropriately attempting to justify its desire to regulate SLCPs based on assumptions about health effects that have not been established in the scientific literature.

Placeholder for Comments on Oil and Gas Cost and Emissions Estimates (Table 18)

SLCP Regulatory Authority

The document states at page 19 that “measures included in the final SLCP Reduction Strategy would be developed under future public regulatory processes.” It also makes multiple references to Executive Orders such as EO B-30-15 as a mandate to pursue further reductions of SLCP emissions. WSPA is concerned that this Proposed Strategy presumes authority to implement future SLCP regulations that is not granted to ARB in either AB 32 or SB 605 (Lara, 2014). Moreover, while AB 32 does authorize ARB to develop control measures for designated greenhouse gasses including methane, pursuant to California Health and Safety Code Section 38551 ARB cannot rely on Executive Orders that purport to extend or expand the scope of existing climate law to justify the new control measures envisioned in this Proposed SLCP Reduction Strategy.

ARB also bases its Proposed Strategy on Governor Brown’s proposal to reduce on-road petroleum use by 50% by 2030. It should be noted that this goal was one of three main elements of SB 350 (De Leon, 2015) but was removed from the bill prior to its passage in the Legislature. Therefore, this goal has not been codified in state law, and ARB does not have any legal authority to pursue it. In addition, on page 93, ARB states that local air districts have a role to play in reducing SLCP, but this statement contradicts ARB’s recent efforts to dissuade local air districts from regulating GHG emissions at the

local level based on concerns about regional emissions leakage. ARB should be consistent in its view that GHG emissions should only be regulated at the state, national and international level.

Thank you for the opportunity to provide comments on ARB's Proposed SLCP Reduction Strategy. We look forward to future opportunities to work with the ARB on this issue. Should you have any questions, please feel free to contact me or Tom Umenhofer of my staff at tom@wspa.org and (805) 701-9142.

Sincerely,

A handwritten signature in blue ink, reading "Cathleen A. Kelly-Boyd". The signature is written in a cursive style with a large initial "C".

CC: Tom Umenhofer, WSPA