

Memorandum

To: Puget Sound Clean Cars Working Group

Date: December 15, 2017

From: Ecology, Gradient, SAE

Subject: Puget Sound Clean Cars Working Group December 13, 2017 Web Meeting Minutes

Web Meeting Participants

- Working Group (WG): Ed Kolodziej, Gary Pollak, Jen McIntyre, Keith Wilson, Michael Smith, Laurie Holmes, Andy Gregory, Dan Selke, Marcel Halberstadt, Elsa Pond, Bill Malatinsky.
- Stakeholder Group (SG): Michelle Gaither.
- Operations Team (OT): Ken Zarker, Tom Lewandowski, Dave Mayfield, and Joel Cohen.

Agenda Items

- Chemical Review Sub-group Activities
 - Dr. Tom Lewandowski (Gradient) presented an update on the Chemical Review Sub-group activities since the last Working Group meeting. These activities consisted of a two pronged approach to identify chemicals of concern related to vehicle leaks: 1) reviewing safety data sheets (SDSs) for vehicle fluids commercially available within the past 3-5 years, and 2) reviewing research articles identifying chemicals of concern from collected stormwater runoff samples. Dr. Lewandowski summarized some preliminary findings, highlighted challenges inherent in this approach, and identified key next steps.
 - Dan Selke (Mercedes-Benz USA, LLC) noted that he has many FedEx envelopes of SDSs received from OEMs and suppliers to share with the Chemical Review Sub-group. Regarding next steps for this sub group, Mr. Selke asked Dr. Lewandowski whether we plan to do a full alternative assessment as a part of this work. Dr. Lewandowski indicated that a full alternative assessment is outside the scope of this project, and that rather we intend to do more of a survey of available information to define the current state of the science.
 - Ken Zarker (Ecology) mentioned other available data regarding pollutant loading in Puget Sound (*e.g.* copper, zinc, phthalates), and wondered how to cross reference this information with the Chemical Review Sub-group's efforts. Dr. Lewandowski indicated all chemicals identified from this group's SDS search would be made available to the Working Group for review and included in forthcoming drafts of the report.
 - Dr. Ed Kolodziej (University of Washington) asked Dr. Lewandowski whether the results of this effort would be circulated to the group. Dr. Lewandowski responded that the results will be included in the draft report to be distributed to the Working Group. Dr. Kolodziej wondered how comprehensive this effort is, and whether it will produce an accurate and fully described list of chemicals found in vehicle fluids. Dr. Lewandowski responded that

this work involved review of 50 – 100 SDSs to date, which may provide an initial indication of chemicals present. Dr. Lewandowski offered to provide additional details and comments on SDS listings for chemical mixtures.

- Dr. Kolodziej asked about how accurate and comprehensive SDS data are, to which Dr. Lewandowski responded that SDS do have limitations in terms of what chemical components are declared (depending on both hazard and concentration, typically 0.1%). . Dan Selke offered to verify this cutoff value for what is listed.
- Dr. Kolodziej asked for chemicals not known to be hazardous, what requirements are there for inclusion or listing on the SDS; Dr. Lewandowski offered to look into this offline. Dr. Kolodziej indicated his research efforts would not look to detect or identify most chemicals of molecular weight <100.
- Dr. Jen McIntyre provided a weblink indicating zinc dithiophosphate is commonly added to vehicle lubricants (see Wikipedia), which Dr. Lewandowski offered to look further into as a part of the sub-group's efforts.
- Draft Report Outline
 - Dr. Lewandowski summarized progress to date, and encouraged Working Group members to contribute to specific sections related to their areas of expertise. Gradient is still gathering feedback and input from WG members on the initial draft outline.
 - Next steps for the draft report were discussed, and a preliminary timeline for report benchmarks was presented. The WG voiced no objections to proposed draft report schedule.
- Puget Sound Partnership Agenda Items
 - Dr. Lewandowski summarized an opportunity for near term action (NTA) proposals to be included in the Puget Sound Partnership 2018-2022 Agenda.
 - Ken Zarker indicated this will be work for the next 4 years, and that the Clean Cars project was originally funded this way. Ecology is interested in pursuing additional work beyond the current Clean Cars scoping study, and hearing from other interested Working Group members about collaborating in this area.
- Progress Update
 - A link to publically available project materials (meeting minutes, presentation slides, videos, newsletters, *etc.*) was presented.
 - Dr. Lewandowski requested volunteers for upcoming Newsletter for Working Group biosketches to make Working Group members more tangible to the public.
 - Gradient plans to distribute poll for next web meeting date, tentatively scheduled for March 2018.
- Additional Questions and Comments
 - Dr. Ed Kolodziej offered to help by looking at the Chemical Review Sub-group's chemical list, and is willing to share his internal databases, groups of recent literature relevant to this work. Dan Selke is also interested in helping review this information.
- Meeting Adjourned.

Draft

For any questions or comments, please contact Dave Mayfield (dmayfield@gradientcorp.com) or Joel Cohen (jcohen@gradientcorp.com).