Scoping Plan Update Comment April 28, 2014

This comment is directed toward the need to include accounting of and increase the awareness of the very commonly used fumigant Sulfuryl Fluoride. Here at UC Irvine the Verano Residents Council and an association of concerned students have been advocating for the last two years to get the campus to engage in alternatives to fumigation. Our reasons are both health & safety and environmental. It is the environmental issue that I wish to relate to CARB here.

Sulfuryl Fluoride (SO2F2 ) is an extremely potent greenhouse gas (GHG).4,5 UCI scientists Mads Sulbaek Andersen, Donald Blake and Nobel Laureate F. Sherwood Rowland have been instrumental in determining that this gas is 4,800 times more efficient than CO2 at trapping heat and remains in the atmosphere for 30 to 100 years, thereby making it one of the top ten greenhouse gases emitted around the world.4,9 SO2F2 concentration has been increasing in the atmosphere at a rate of 5 percent per year.

To help understand the impact of the planned fumigation of 300 apartments in Verano Place Housing, we have calculated the corresponding CO2 footprint to be between 2000 - 6500 metric tons.6,7,12 This amount of carbon dioxide (CO2e) is equivalent to the annual emissions from the electricity used by 3,500 Southern Californian homes or 1,500 passenger vehicles per year (Appendix A).7 To put this in perspective as a building maintenance practice in 2012 all of Verano Place Housing emitted 2267 Metric Tons CO2e (2012 Climate Registry Report UCI).  So the fumigation of just the Unit 6 complexes (about ½ of Verano) would be 2 to 3 times all of Verano’s annual emissions from natural gas and electricity.  The fumigation industry likes to advertise that Vikane simply “dissipates” into the air. To many of the residents here this is simply an unsustainable practice.

So now after two seasons of exhaustive campaigning on this issue we have finally convinced the campus to begin some testing and trial runs with heat treatment. At the same time they have committed to putting together a team of industry, academic, and regulatory experts to adapt the process of scrubbing sulfuryl fluoride from the food processing plants in the mid-west to the fumigation tents of California. While we feel the heat treatment is preferable for health and safety reasons, both of these strategies are infinitely better than simply releasing thousands of tons of CO2e into the atmosphere for a treatment that provides no long term protection whatsoever.

We feel UCI has a great opportunity here to take the lead on this important environmental issue. Part of getting support for this cause is having the state acknowledge the degree of the problem. UCI has to report the six gases of the Kyoto Protocol. Here at UCI we take great pride in our environmental activities. Yet large CO2e releases of gases like sulfuryl fluoride do not have to be reported and therefore do not help or hurt our environmental reputation. While we have succeeded with much effort to get this issue recognized for it's environmental importance, if UCI was required to report the emission of sulfuryl fluoride it is very likely the conversation would be different.

The point here is that recognition and accounting practices of the state make a big difference in how policy gets enacted on the local level, as in our case. Currently CARB does not include SO2F2 in it's inventory in detail or in aggregate. It is understandable that CARB wants to create an inventory to compare with 1990 gases to meet legislated goals. Yet we look to CARB to keep an accurate accounting of ALL greenhouse gas emissions in the state of California. If that is not in CARB's mandate I suggest that it should be and additional language should be added to the law to include this important function.

CABR could easily keep an inventory that is defined as the relative inventory for meeting the 1990 related goals. At the same time CARB should keep an inventory of all gases with authority to verify them as well, and this all inclusive record should be publicly available. When policy managers ask the question whether a particular gas or practice is an issue, it supports efforts to find alternatives if the emission is seen as something the state is monitoring and concerned about. And SO2F2 is a significant gas with 6 MMTons of CO2e emissions reported in 2012 (CDPR).

Sincerely,

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Verano Residents Council

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