



892 Arlington Av.
Berkeley, CA, 94707
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Tuesday, October 1, 2019

Dear Stanley, Barry:

As a nonprofit research and policy organization dedicated to identifying and reducing environmental health hazards, Environmental Health Trust (EHT) has a longstanding history of research and policy advice to state, local and national governments regarding strategies to reduce toxic exposures and disease. As well EHT has engaged in education and outreach on best practices to promote health by avoiding environmental health hazards. Please do not approve the Authority to Construct Air Permit of the Organic Material Recovery Facility (OMRF) and Organics Material Composting Facility (OMCF). The San Leandro Community including Garfield Elementary School and Mulford Gardens include vulnerable populations that are in close proximity to the Davis Street Transfer Station Facility emissions where exposures may exceed health risk limits that will result in significant health impacts for which there are feasible best available control technologies to reduce the proposed emissions. The comments to follow are consistent with public health concepts of preventing harm by reducing personal exposures to suspected asthmagens, neurotoxins, and other listed toxic substances. My PhD in environmental engineering and years of experience in manufacturing including in air pollution control technology are what prompt me to make these comments. ([see Stein CV here](#)).

Please provide additional time in this public review such that I may have the opportunity to provide additional comments after you provide clarification on the information that is in your Engineering Report that is not consistent with the DSTS Project description previously presented by the applicant at other State and local meetings including those for the Davis Street Transfer Station Facility Transfer Processing Report Documents:

- [Transfer Processing Report \(TPR\) - \(Rev 14, October 2016\)](#) (PDF)
 - [Appendices \(Appendix A- X\) to the TPR](#) (ZIP)
- <http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0007/Document?SITESCH=01-AA-0007>
- http://www.acgov.org/aceh/solid/solid_waste_program.htm

The Engineering Evaluation includes an inadequate analysis of the VOC emissions and the expected impacts especially for the asthma triggering chemical VOC emissions from the operations described for which the State of California OEHHA has set thresholds (aside from the cancer limits.)

This zone is high a highly impacted asthma zone; therefore each individual VOC emitted from this project should modelled to meet the Office of Environmental Health Hazard Assessment (OEHHA) Chronic reference exposure limits, CRELS for the residential locations including at Garfield School and at the residential locations nearest to the DSTS and improved control technologies should be applied beyond the biofilter to reduce the VOC emissions.

This location is a Hot Spot in Cal Enviro Screen for Toxic inhalation impacts, yet the engineering analysis only looks at ozone producing VOCs and does no analysis for the impacts of the VOCs on the population from inhalation as OEHHA has guidance on.

Need to do health risk analysis on the inhalation impacts to the nearby population. Please check using the HARP model what the max emissions will be for each of the VOC inhalation asthma-gens that impact inhalation to ensure that the proposed BACT for this project will reduce these emission to levels below the OEHHA limits for 8 hour and chronic exposures.

The Engineering Evaluation report fails to present the project clearly including all of the toxic emissions. The

evaluation does not clearly explain the actual emissions instead it lists as follows:

S-64 OMCF Organic Material Stockpiles Abated by Dust Collector DC-1 A-12 (12,316 cfm) and Acid Gas Scrubber and Biofilter #2 A-7 (Surface area = 4,227 sq ft, Depth = 8 feet, Blower flow rate = 35,000 cfm Phase 1 and 38,000 cfm Phase 2, Media type = Biomix of broken and fibrous roots 50-120mm (approx. 30%) and pine bark/woodchips 20-50mm (approx. 70%))

S-65 OMCF Pre-Processing Material Handling Operation Abated by Dust Collector DC-1 A-12 (12,316 cfm) and Acid Gas Scrubber and Biofilter #2 A-7 (Surface area = 4,227 sq ft, Depth = 8 feet, Blower flow rate = 35,000 cfm Phase 1 and 38,000 cfm Phase 2, Media type = Biomix of broken and fibrous roots 50-120mm (approx. 30%) and pine bark/woodchips 20-50mm (approx. 70%))

S-66 OMCF Rotary Drum Reactors #1 and #2 (Phase 1) Abated by Acid Gas Scrubber and Biofilter #2 A-7 (Surface area = 4,227 sq ft, Depth = 8 feet, Blower flow rate = 35,000 cfm Phase 1 and 38,000 cfm Phase 2, Media type = Biomix of broken and fibrous roots 50-120mm (approx. 30%) and pine bark/woodchips 20-50mm (approx. 70%))

S-67 OMCF Rotary Drum Reactors #3 and #4 (Phase 2) Abated by Acid Gas Scrubber and Biofilter #2 A-7 (Surface area = 4,227 sq ft, Depth = 8 feet, Blower flow rate = 35,000 cfm Phase 1 and 38,000 cfm Phase 2, Media type = Biomix of broken and fibrous roots 50-120mm (approx. 30%) and pine bark/woodchips 20-50mm (approx. 70%))

S-68 OMCF In-Vessel Composting Lanes #1 through #8 (Phase 1) Abated by Acid Gas Scrubber and Biofilter #3 A-9 (Surface area = 5,176 sq ft, Depth = 8 feet, Blower flow rate = 48,000 cfm, Media type = Biomix of broken and fibrous roots 50-120mm (approx.

30%) and pine bark/woodchips 20-50mm (approx. 70%))

S-69 OMCF In-Vessel Composting Lanes #9 through #16 (Phase 2) Abated by Acid Gas Scrubber and Biofilter #4 A-11 (Surface area = 5,176 sq ft, Depth = 8 feet, Blower flow rate = 48,000 cfm, Media type = Biomix of broken and fibrous roots 50-120mm (approx. 30%) and pine bark/woodchips 20-50mm (approx. 70%))

S-70 OMCF Post-Processing Material Handling Operation Abated by Dust Collectors DC-2 A-13 (12,316 cfm), DC-3 A-14 (12,316 cfm), DC-4 A-15 (12,316 cfm), and DC-5 A-16 (10,012 cfm) and Acid Gas Scrubber and Biofilter #2 A-7 (Surface area = 4,227 sq ft, Depth = 8 feet, Blower flow rate = 35,000 cfm Phase 1 and 38,000 cfm Phase 2, Media type = Biomix of broken and fibrous roots 50-120mm (approx. 30%) and pine bark/woodchips 20-50mm (approx. 70%))

The biofilter will serve as the control technology for multiple sources inside the building but from an emission standpoint the biofilter stack is one source emitting to the external air. No emissions will be emitted to the outdoor air from S-64,65,66,67,68,69. Instead all of these will have one stack. It's unclear why your report presents it this way. We ask that this be corrected before comments are closed. As you currently present it each is considered a separate source in your calculations instead of them being added together as they should be. S-64,65,66,67,68,69 should be combined into a source for the one biofilter.

Also a biofilter is not the best potential control efficiency for organic emissions for the toxic emissions from these in facility IV composting and processing stacks at the DSTS!!

The applicant has not proposed the most effective control option. The applicant has proposed an in-vessel composting operation with biofilter alone for its abatement which does not meet the BAAQMD BACT2 requirements. A BACT cost effectiveness determination is required and GAC should be used.

The BAAQMD has published proposed BACT Guidelines for VOC emissions. This has not gone through public comments and it is not regulation. There have been no instances of this being used in an urban environment. VOC Best Available control technology in an urban environment has been established to be achieved with the addition of granulated Activated Carbon that can be included in addition to the biofilter alone when the VOC levels are at the magnitude presented. There has been no showing that this BACT is infeasible at this location. This is the BACT that was adopted in Berkeley CA in an urban environment for VOC concentrations.

The Engineering evaluation fails to fairly evaluate the overall Davis Street Transfer Station toxic emissions, instead the evaluation attempts to parse the toxic emissions in half. The Report fails to provide what emissions were used in the so-called HARP Project Summary Report that is not attached or accessible to the public. Best available control technology to reduce the overall emissions are not being applied for the emissions found in the report. Instead of evaluating the impact of all of the toxic emissions from the full facility on the community it evaluates

the impact stack by stack missing the full impact. The impact of these stacks together are additive and cumulative. The community experiences the toxics from all the stacks at once. The BAAQMD is required to apply the best available control technology for the total emissions. The composting stacks are required to include BACT to reduce the VOCs to level. .

Source Contributions to P12_BIO:		Emissions	Cancer Contribution	Cancer Risk in a million	Source Total
S-64	Acetaldehyde	12.50%	0.32%	0.004	0.004
	Naphthalene	0.01%	0.01%	0.000	
S-66, 67	Acetaldehyde	17.50%	0.45%	0.006	0.241
	Naphthalene	20.00%	19.47%	0.236	
S-68	Acetaldehyde	35.00%	0.91%	0.011	0.483
	Naphthalene	40.00%	38.95%	0.472	
S-69	Acetaldehyde	35.00%	0.91%	0.011	0.483
	Naphthalene	40.00%	38.95%	0.472	
Total					1.21

Since no individual source group has a cancer risk contribution of 1.0 or higher, TBACT review is not triggered.

The HRA does not present the risk of inhalation impacts on asthma for the nearby community. VOC controls need to be increased to reduce the impacts on the community. The proposed project does not have adequate controls for the S-66, S-67, S-68, S-69 compost project; it is wrong for the BAAQMD to parse the emissions stack by stack to claim to meet the POC emission limits and control measures to satisfy BACT for POC control. Analysis needs to address the total emissions and control the total emissions.

Please provide an extension on this public comment.
Best,

Sincerely,



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