

May 20, 2014

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Sent electronically to: industrialstormwatercomments@ecy.wa.gov

RE: Washington State Marine Terminal AKART and ISGP Corrective Action Guidance Manual
Public Review Draft

To whom it may concern,

Thank you for the opportunity to review and comment on the Washington State Marine Terminal AKART and ISGP Corrective Action Guidance Manual Public Review Draft.

Table C-2 (page 55 of 70)

In Table C-2, “Chitosan Enhanced Sand Filtration” and “Wavelonics” are both labeled as having GULD status in the Pre-Treatment category. Neither of these technologies has a Pre-Treatment GULD designation. However, both of them do have GULD status in the Construction Site category. As noted in the Department of Ecology’s definition of the Construction Site category,

“Construction treatment is intended to achieve the goals of a maximum of 5 NTUs above background (background of 50 NTUs or less), not more than 10% increase in turbidity where background is greater than 50 NTUs, pH of 6.5-8.5 in freshwater and 7.0-8.5 in marine water, and no visible oil sheen.”

WaterTectonics recommends that Chitosan Enhanced Sand Filtration and Wavelonics be removed from the Pre-Treatment category and that all technologies listed in the Construction Site GULD category be added to this table in a new column. Because of the stringent effluent turbidity requirements on Construction Site GULD technologies, most Construction Site technologies would exceed both the Pre-Treatment and Basic treatment categories in terms of TSS reduction. Many technologies listed in the Construction Site category have been implemented at industrial facilities. This could be seen by reviewing approved industrial stormwater engineering reports.



Additionally, WaterTectonics is concerned about recommending technologies approved under the TAPE program (Pre-Treatment, Oil Treatment, Basic Treatment, and Enhanced Treatment) as being applicable to industrial facilities. As stated by the Department of Ecology,

“Ecology’s TAPE is intended for ultra-urban treatment technologies and those treatment technologies that do not have a chemical component for treatment.”

The bounded influent ranges required for demonstrating effective performance are modeled more closely to municipal urban runoff than industrial stormwater runoff. The influent concentration ranges on many industrial facilities would exceed the bounded influent ranges required by the TAPE program.

Table C-3 and Table C-4 (pages 56 to 59)

WaterTectonics is concerned about the use of percent reductions as an indicator of a technology’s abilities to meet ISGP benchmarks for Zinc and Copper.

For example, the OilTrap Environmental ElectroPulse system shows 99% reduction of Total and Dissolved Zinc. However, this percent reduction was based on an influent of 151mg/L and an effluent of 0.34mg/L Total Zinc. An effluent Total Zinc of 0.34mg/L does not meet the ISGP benchmark for Zinc.

In contrast, the Wavelonics system shows 94% reduction of Total Zinc and 83% reduction of Dissolved Zinc. This percent reduction was based on an influent of 0.516 mg/L and an effluent of 0.0315 mg/L Total Zinc. An effluent value of 0.0315mg/L does meet the ISGP benchmark for Zinc.

Similarly, the OilTrap Environmental ElectroPulse system shows 99% reduction of Total and Dissolved Copper. However, this percent reduction was based on an influent of 12.1mg/L and an effluent of 0.072mg/L. An effluent Total Copper of 0.072 does not meet the ISGP benchmark for Copper.

In contrast, the Wavelonics system shows 100% reduction of Total Copper and 79% reduction of Dissolved Copper. This percent reduction was based on an influent of 4.8mg/L and an effluent of 0.0074mg/L. An effluent Total Copper of 0.0074 does meet the ISGP benchmark for Copper.



Table C-5 (page 60 of 70)

Table C-5 references multiple technologies included in the Herrera “Emerging Tech” report. The WaterTectonics Wavelonics system was included in that report. TSS data showing 98% reduction for the Wavelonics system was noted in that report. Please add the TSS data for the Wavelonics system that was included in the Herrera Emerging Tech report.

Please feel free to contact us with your questions at (425) 349-4200.

Regards,

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