

Alternative Technology Advisory Subcommittee
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force

Minutes for October 21, 2021

WEB CONFERENCE

Los Angeles County Public Works
900 South Fremont Avenue
Alhambra, CA 91803

SUBCOMMITTEE MEMBERS PRESENT:

Dorcas Dee Daniel-Lugo, Los Angeles County Department of Public Health
Michelle Dewey, rep by Paulina Kolic, California Department of Resources Recycling
and Recovery (CalRecycle)
Wayde Hunter, North Valley Coalition of Concerned Citizens, Inc.
Ron Kent, rep by Flavio Da Cruz
Ben Lucha, City of Palmdale
Mark McDannel, Los Angeles County Sanitation Districts
Mike Mohajer, Los Angeles County Integrated Waste Management Task Force
Darshna Patel, City of Los Angeles
Christopher Sheppard, rep by Charles Darensbourg, Los Angeles County Public Works
Kevin Mattson, Waste Management
Steve Cassulo, Waste Connections

SUBCOMMITTEE MEMBERS NOT PRESENT:

Chris Coyle, rep by Dennis Montano, Republic Services, Inc.
Ron Kent, Southern California Gas Company
Kay Martin, Bioenergy Producers Association
Eugene Tseng, UCLA Solid Waste Program

OTHERS PRESENT:

Christine Arbogast, Tetra Tech
Teddy Horangic, Kyklos
Tova Kleiner, Kyklos
Aramis Mendoza, Kyklos
Carol Oyola, Los Angeles County Public Works
Narek Vartunian, Los Angeles County Public Works
Jeffrey Zhu, Los Angeles County Public Works

I. CALL TO ORDER

Mr. Charles Darensbourg called the meeting to order at 10:01 a.m.

II. APPROVAL OF SEPTEMBER 16, 2021 SUBCOMMITTEE MINUTES

A motion to approve the minutes from the September 16, 2021 meeting was made by Mr. Mike Mohajer and seconded by Mr. Ben Lucha. The motion passed unanimously.

III. PRESENTATION – KYKLOS WASTE MANAGEMENT SOLUTIONS

Ms. Aramis Mendoza, Ms. Teddy Horangic, and Ms. Tova Kleiner of Kyklos Waste Management Solutions (Kyklos) provided information on their gasification technology, which is capable of processing municipal solid waste (MSW) feedstocks such as green waste, food waste, plastic waste, and textiles to produce electricity, biochar, and thermal energy. Kyklos' gasification systems are being utilized by multiple facilities in Asia. Kyklos' gasification system uses modules that can each process 15,000 metric tons of waste per year to produce one megawatt of electricity. Up to ten modules can run in parallel together. Kyklos is also testing the possibility of producing hydrogen.

Mr. Ben Lucha asked if Kyklos has any operations in the US. Ms. Horangic responded that they do not, but they are developing pilot plants in New Jersey and Florida. Mr. Lucha also asked about their tipping fees. Ms. Horangic responded that, based on discussions with counties in those states, Kyklos is considering the same tipping fees as landfills.

Mr. Mohajer asked if the air emissions had been tested and if the technology can meet air quality standards in California. Ms. Horangic responded that Kyklos has conducted air quality analyses in New Jersey and is confident that the technology will meet California air quality standards.

Mr. Mohajer asked if Kyklos has discussed with CalRecycle whether the process would be considered diversion or disposal if it accepts all MSW feedstocks. Ms. Horangic responded that the technology would be considered disposal in California, but there is a possibility that the technology could be considered diversion if it processes biomass only. Mr. Mohajer asked if Kyklos' goal for the immediate future is processing green waste only. Ms. Horangic said the goal is to process all MSW, but they may process green waste only to facilitate permitting and development.

Mr. Lucha asked if the tipping fee for a facility processing organic waste only would be lower than a facility processing MSW. Ms. Horangic responded that if there are

not many options for organic waste processing, then the tipping fees may be higher for a facility processing organic waste.

IV. UPDATE ON CONVERSION TECHNOLOGY POLICY AND LEGISLATION

Mr. Darensbourg provided an update on policy and legislation.

At CalRecycle's monthly meeting on September 21, 2021, CalRecycle staff stated that their new webpage details eligibility for department-issued waivers and exemptions. CalRecycle posted a breakdown of record keeping requirements and new tools to make record keeping easier. At CalRecycle's monthly meeting on October 19, 2021, CalRecycle staff stated that they are working on developing additional resources for local jurisdictions.

The US Environmental Protection Agency (EPA) is soliciting public information and comments for the potential development of regulations for pyrolysis and gasification units that convert waste into energy, fuels, and other products. As a result of recent market trends, especially with respect to plastics recycling, the EPA has received several inquiries about regulations under Clean Air Act (CAA) Section 129 for solid waste incineration units and the applicability of such regulations to pyrolysis and gasification units. Last year, the EPA proposed to remove pyrolysis from the definition of incineration and combustion and stated that pyrolysis should not be regulated by CAA Section 129. The EPA would like to gain a comprehensive understanding of gasification and pyrolysis to aid in potential development of future regulations or changes to existing CAA Section 129 regulations, including appropriate categorization of pyrolysis and gasification units because the CAA does not currently define pyrolysis or gasification.

The EPA prepared information on these technologies and is requesting comments on whether this information appropriately captures the nature of pyrolysis and gasification. The EPA provided a list of commercial and pilot scale gasification and pyrolysis facilities in the US and is requesting comments on whether this list is comprehensive. The EPA is seeking data from operating facilities regarding their technology, process, air emissions, feedstock, and end products. Comments must be received on or before November 8, 2021.

Mr. Lucha asked if an analysis on Senate Bill 619 (SB 619) had been completed. Mr. Darensbourg responded that CalRecycle is developing guidance for jurisdictions, who have to submit documentation to CalRecycle if they want to postpone the SB 1383 requirements that take effect on January 1, 2022. CalRecycle will consider extending the compliance deadline if jurisdictions demonstrate an effort to comply.

Mr. Mohajer commented that SB 619 does not waive penalties, but only delays penalties for the first year. The deadline to submit documentation is March 2022. SB 619 authorizes CalRecycle to adopt emergency regulations to implement and enforce the new requirements for jurisdictions who want to delay penalties.

V. UPDATE ON CONVERSION TECHNOLOGY EVENTS/MEETINGS/OUTREACH ACTIVITIES

Mr. Darensbourg provided an update of events and conferences that can also be found in the [Conversion Technology newsletter](#) and Subcommittee meeting minutes:

- Air & Waste Management Association (A&WMA) West Coast Section Annual Conference: October 28, 2021, Virtual
- WasteCon 2021: November 1 – 4, 2021, Kissimmee, FL
- Southern California Waste Management Forum (SCWMF) Annual Conference & Exhibit: November 10, 2021, Ontario, CA
- 2021 California Bioresources Alliance Symposium: November 18 – 19, 2021, Virtual
- California State Association of Counties (CSAC) 127th Annual Meeting/County Engineers Association of California (CEAC) Fall Conference: November 30 – December 3, 2021, Monterey County

Mr. Mohajer mentioned that the SCWMF Annual Conference & Exhibit is sold out and that people interested in attending may call to join the waiting list. Most of the discussions at the conference will involve the SB 1383 regulations.

VI. UPDATE ON CONVERSION TECHNOLOGY PROJECT DEVELOPMENT

Ms. Christine Arbogast of Tetra Tech stated that they have been working in consultation with Public Works to finalize three different fact sheets for anaerobic digestion technologies.

VII. PUBLIC COMMENTS

No public comment.

VIII. ADJOURNMENT

The meeting adjourned at 10:49 a.m. The next ATAS meeting is tentatively scheduled remotely for Thursday, November 18, 2021, at 10 a.m.