

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

Minutes for September 17, 2020

WEB CONFERENCE

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

SUBCOMMITTEE MEMBERS PRESENT:

Steve Cassulo, rep by Brenda Eells, Waste Connections
Tim Hall, rep by Michelle Dewey, California Department of Resources Recycling and Recovery (CalRecycle)
Wayde Hunter, North Valley Coalition of Concerned Citizens, Inc.
Ron Kent, rep by Paul Ghougassian, Southern California Gas Company
Ben Lucha, City of Palmdale
Kevin Mattson, Waste Management
Mark McDannel, County Sanitation Districts of Los Angeles County
Mike Mohajer, Los Angeles County Integrated Waste Management Task Force
Christopher Sheppard, Los Angeles County Public Works
Eugene Tseng, UCLA Solid Waste Program
Carolyn Watson, rep by Dorcas Dee Daniel-Lugo, Los Angeles County Department of Public Health

SUBCOMMITTEE MEMBERS NOT PRESENT:

Chris Coyle, Republic Services, Inc. – Sunshine Canyon Landfill
Alex Helou, City of Los Angeles
Kay Martin, Bioenergy Producers Association
Rob Williams, UC Davis Policy Institute for Energy, Environment and the Economy

OTHERS PRESENT:

Traecey Anthony, Alternative Resources, Inc.
Marcus Chee, Nanomass Corporation
Carol Oyola, Los Angeles County Public Works
Sarah Solomon, Los Angeles County Public Works
Kawsar Vazifdar, Los Angeles County Public Works
Jeffrey Zhu, Los Angeles County Public Works

I. CALL TO ORDER

Mr. Christopher Sheppard called the meeting to order at 10:01 a.m.

II. APPROVAL OF AUGUST 20, 2020 SUBCOMMITTEE MINUTES

A motion to approve the minutes from the August 20, 2020 meeting was made by Mr. Mike Mohajer and seconded by Mr. Eugene Tseng. The motion passed unanimously.

III. PRESENTATION – NANOMASS CORPORATION

Mr. Marcus Chee of Nanomass Corporation gave a presentation on the company's technology that processes organic waste and turns it into a dry powder that can be added to anaerobic digesters (AD) to optimize the generation of renewable natural gas (RNG). Mr. Chee stated that Nanomass uses ultrasound technology to dehydrate, disintegrate, and sterilize organic waste without using heat.

Mr. Chee stated this technology helps address common storage and transportation challenges, like odor and cost, surrounding wet, heavy food waste by reducing it to a 300-mesh dry powder that is easy to store on site. Mr. Chee stated that the dry powder can be transported to centralized AD plants that are connected to RNG pipelines and reduce costs associated with RNG production.

Mr. Eugene Tseng asked if Nanomass is focusing on a specific organic waste feedstock. Mr. Chee responded that they are focusing on food waste to optimize RNG production. Mr. Tseng stated that Nanomass should consider the health and safety aspects of powdered fuels and the use of nitrogen purging, which is an international standard for powdered fuels. Mr. Tseng added that collecting source separated organics is expensive and that source separated organics contain 25 to 35 percent contamination. Mr. Chee responded that they can accept contaminants such as plastics, although plastics do not produce RNG. Mr. Tseng asked if the process is a continuous, semi-batch, or batch process. Mr. Chee responded that it is continuous.

Mr. Sheppard asked what type of pre-processing Nanomass uses. Mr. Chee stated that they have a pre-shredder that reduces material to two to five inches. Mr. Sheppard asked if the powder produced could be co-digested at existing ADs, such as wastewater treatment plants. Mr. Chee responded that the powder can be used with existing ADs. Mr. Sheppard asked if they have an estimated tipping fee. Mr. Chee responded they do not, but they are willing to discuss this with various agencies.

Mr. Wayde Hunter asked if there was potential for their ultrasound technology to interfere with neighbors, aircraft, or any surrounding technology. Mr. Chee responded that there is no interference.

Mr. Mohajer asked how long the AD process takes using the powder. Mr. Chee responded that they have not done a full scale test yet; however, past testing of the powder has shown to significantly reduce the processing time.

Mr. Sheppard thanked Mr. Chee for his presentation and encouraged him to reach out to any of the ATAS members if he had questions.

IV. UPDATE ON CONVERSION TECHNOLOGY POLICY AND LEGISLATION

Ms. Sarah Solomon provided the following update:

- CalRecycle is currently revising the Senate Bill 1383 (SB 1383) regulations and expects to submit them to the Office of Administrative Law (OAL) later this month.
- Governor Gavin Newsom extended the rulemaking package resubmission deadline to November 2020.
- CalRecycle released the SB 1383 progress analysis report, which Mr. Sheppard will be presenting at this afternoon's Task Force meeting.

Mr. Sheppard asked Ms. Michelle Dewey if she had more information on the extended rulemaking package resubmission deadline. Ms. Dewey responded that her team is working to get the SB 1383 package resubmitted to the OAL very shortly and she encouraged everyone to sign up to the SB 1383 listserv. Ms. Dewey also mentioned that CalRecycle announced that its draft SB 1383 model tools were now available on their website.

Mr. Mohajer commented on the Statewide Commission on Recycling Markets and Curbside Recycling meeting where CalRecycle discussed Assembly Bill 3163 (AB 3163) and indicated that organic waste from livestock and sewage sludge would qualify as RNG. He added that CalRecycle would consider livestock and sewage sludge used to produce RNG through non-combustion thermal conversion technologies as being "disposed," per Assembly Bill 939. Mr. Sheppard asked Ms. Dewey if she had anything to share regarding the issue. Ms. Dewey responded that she was unable to attend the meeting but would follow up with Mr. Sheppard. Mr. Mohajer commented that he would like a written explanation from CalRecycle. Ms. Dewey responded that she would check with her team and would be available to speak more about the issue offline.

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

Ms. Solomon mentioned the following conferences that are also listed in the Conversion Technology (CT) Newsletter.

- RNG WORKS 2020 Technical Workshop & Trade Expo - scheduled on September 30 - October 1, 2020, in Nashville, TN – CANCELED. Packages of information that would have been disseminated will be released.
- U.S. Biogas 2020 - held virtually on October 5 - 6, 2020.
- Biocycle REFOR 2020 – October 19 – 22, 2020, in Raleigh, NC - CANCELED
- Paper and Plastics Recycling Conference – live broadcast scheduled on October 20 - 22, 2020.
- VERGE 2020 Conference – held virtually on October 27 – 29, 2020.
- Annual Southern California Waste Management Forum Conference - held virtually on November 5, 2020.

VI. UPDATE ON CONVERSION TECHNOLOGY PROJECT DEVELOPMENT

Ms. Traacey Anthony of Alternative Resources, Inc. (ARI) gave the following update:

- ARI performed research on three potential sites for CT development to obtain information including topography, dimensions, distance to grid and permitted capacity.
- Clements Environmental provided clarification on facility permitting flow charts and specified that Title V operating permits are required for CT facilities that exceed major air emissions thresholds for criteria pollutants. Compost and anaerobic digestion facilities do not typically require Title V operating permits. Biomass gasification facilities may not require Title V operating permits since the feedstock is generally less contaminated, but municipal solid waste gasification facilities have the potential for increased emissions of criteria pollutants and may require Title V operating permits.

Mr. Sheppard mentioned that the flow charts for the permitting pathways will be posted to the CT website once finalized as a tool for local developers in the Los Angeles County region to better understand the permitting process.

Mr. Mohajer stated that he wanted to review the flow charts and asked Ms. Anthony whether composting facilities would require Title V operating permits due to ammonia emissions. Ms. Anthony stated that compost and AD facilities do not typically require Title V operating permits, but that she would check with Clements Environmental.

Mr. Mark McDannel gave a brief update on the Sanitation Districts' food waste digestion program. He stated that they have been accepting about 250 tons per day of food waste slurry at the Joint Water Pollution Control Plant (JWPCP) from eight or nine different suppliers. He stated that the \$3 million pipeline for the biogas conditioning system has been installed and will go online October 2020. He added that the facility will produce RNG fuel for an onsite fueling station. The

Sanitation Districts have entered into a contract with Clean Energy Fuels to operate the fueling station.

Mr. Sheppard asked if it was not necessary to expand the fueling station since the infrastructure already exists. Mr. McDannel confirmed that was correct and that they will be displacing the CNG currently used with RNG. Mr. Sheppard asked if there were any plans to add additional fueling infrastructure. Mr. McDannel responded that they are a year away from making a final decision, but that pipeline injection is currently their leading option for future expansion.

Mr. Mohajer asked if the virtual tour at JWPCP was still scheduled for this upcoming Saturday. Mr. McDannel replied that it was. Mr. Sheppard asked if it was too late for Subcommittee members to sign up for the tour. Mr. McDannel responded that he did not know, but that he would forward the information to the Subcommittee members.

VII. PUBLIC COMMENTS

No comments.

IX. ADJOURNMENT

Mr. Sheppard mentioned that if any Subcommittee members had any ideas, topics, or suggestions to cover at the Subcommittee meetings or knew of companies that would like to present, to please contact ATAS staff.

The meeting adjourned at 11:03 a.m. The next ATAS meeting is tentatively scheduled remotely for Thursday, October 15, 2020, at 10 a.m.