

## Aries Clean Technologies – Taunton Biosolids Gasification Project Fact Sheet

### **Project Summary**

Aries Clean Technologies is proposing to build a new biosolids gasification facility at the southern end of the Taunton landfill on East Britannia Street. The facility will turn wet biosolids cake (a waste from municipal wastewater treatment plants) into biochar (a product for use in concrete). This privately-funded project offers a long term, sustainable alternative for biosolids disposal, avoiding incineration & landfilling and reducing greenhouse gas emissions.

### **Project Benefits**

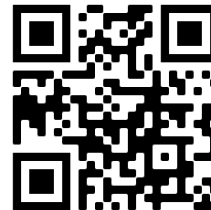
The project will generate tangible benefits for the City of Taunton and the broader community. This will be the first biosolids processing plant in Massachusetts to embrace the idea of upcycling to solve the human waste dilemma. The project eliminates the need to landfill or incinerate biosolids. Instead, the organic material in biosolids is transformed into valuable end products. This long term, cost-effective biosolids disposal solution protects clean water resources, reduces environmental impact, and generates renewable energy, thereby mitigating climate change while also meeting the primary objective of Taunton to sustainably manage its biosolids. Additional benefits include the creation of 20-25 new full-time, high paying green jobs and 100 construction jobs, as well as financial benefits to the City of Taunton.

*Ways to Learn More*



There will be a public information session hosted by Aries Clean Technologies at Bristol Community College on March 24<sup>th</sup> from 5 - 8 PM. The session will be “science fair” style with poster presentations and technical experts there to answer questions and explain the materials in the Draft Environmental Impact Report (DEIR). Interested parties are encouraged to drop in anytime between 5 - 8 PM.

- Go to <https://www.ariestaunton.com/> to learn more about Aries Clean Technologies and the Taunton Biosolids Gasification Project. Here, you can also find the recently published DEIR that contains a complete project description, technical analyses, and responses to comments received so far. The DEIR is also available for review at the Taunton Public Library and City Hall. You can request a copy through Epsilon Associates ([csnowdon@epsilonassociates.com](mailto:csnowdon@epsilonassociates.com), 978-897-7100).
- Scan the QR code to learn more:

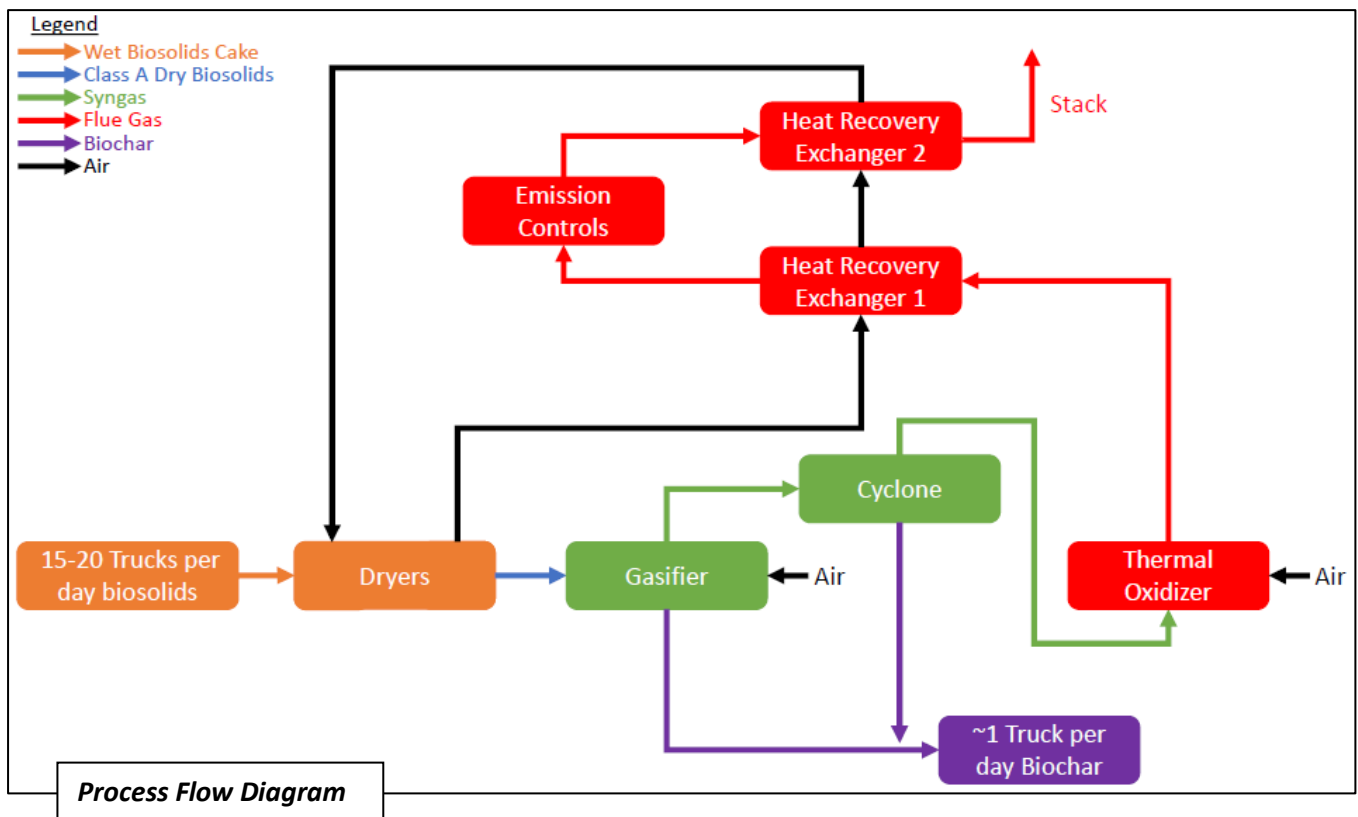


- Learn more about the MEPA review process by going to <https://www.mass.gov/orgs/massachusetts-environmental-policy-act-office> or by calling MEPA analyst Alex Strysky at 857-408-6957.
- For general questions, call us at 987-243-0851.



## Process Description

1. Indoor Unload Area: About 15-20 sealed trailers per day deliver wet biosolids cake.
2. Dryers: Use warm air in a closed-loop system to dry the biosolids.
3. Gasifier: Converts the biosolids into two products: biochar and syngas (a natural gas replacement). Unlike incinerators, gasifiers operate in an oxygen-starved environment with no flame present - nothing is burned in the gasifier.
4. Cyclone: Creates a circular current to separate the biochar from the syngas.
5. Thermal Oxidizer: Burns the syngas to create heat, and to destroy organic material in the syngas. Any odors from the biosolids are also destroyed in the thermal oxidizer. Using syngas avoids using fossil fuels.
6. Heat Recovery Exchangers: Use the heat from the thermal oxidizer to warm the air used in the dryers.
7. Emission Controls: A catalyst, a dry scrubber, and a filter destroy or remove remaining air contaminants from the thermal oxidizer exhaust.
8. Product load-out: Because the process achieves a 20-to-1 volume reduction, only about one truck per day of biochar leaves the facility.



## ***Potential Impacts***

Aries Clean Technologies will avoid and minimize impacts as follows:

- **Traffic:** Nearly all trucks will take one turn at the intersection of East Britannia Street and Broadway (Route 138) before a straight run to Interstate 495. The traffic (15-20 truck trips per day) is more than ten times lower than traffic when the landfill was operating.
- **Odor:** Odorous materials will be kept indoors. The building will be kept under negative pressure and any odors will be sucked into the thermal oxidizer and destroyed. Wet biosolids cake will be delivered in sealed bottom-dump trailers, and biochar has no odor.
- **Air Quality:** The thermal oxidizer, catalyst, dry scrubber, and filter will destroy or remove air contaminants. Computer air dispersion modeling shows that the facility will not cause or contribute to any condition of unhealthy air.
- **Water Quality:** Water will be evaporated from the wet biosolids cake and then condensed. That's the same process used to create distilled (purified) water. The evaporated & recondensed water will be discharged to the municipal sewer, along with any incidental clean-up water. The Taunton wastewater treatment plant has ample capacity to handle the quantity and quality of the discharge.
- **Noise:** Most equipment will be indoors, and truck traffic will be subject to time-of-day restrictions. Low-noise fans, silencers, and enclosures will minimize noise. Computer noise modeling shows that the facility will not cause a nuisance condition.
- **PFAS:** Per- and poly-fluoralkyl substances (PFAS) are widely used, long lasting chemicals, components of which break down very slowly over time. Aries will not use PFAS, and most PFAS in the incoming biosolids will be destroyed. A public health risk assessment shows the facility-related PFAS impacts are negligible.
- **Construction:** The site is currently used for residential recycling drop-off and other Department of Public Works activities, which will be moved. Construction will last about 18 months and will be mostly contained to the landfill site. Aries will work with the City to limit dust, noise, and traffic impacts during construction.

## ***Ways to Provide Input***

Aries Clean Technologies has submitted its DEIR to the Massachusetts Environmental Policy Act (MEPA) Office and has asked for an extended comment period to provide more time for public review of the project.

Submit comments on the DEIR:

- **MEPA online portal:**  
<https://eeaonline.eea.state.ma.us/EEA/PublicComment/Landing/>
- **Email:** [Alexander.Strycky@mass.gov](mailto:Alexander.Strycky@mass.gov)
- **Mail:** Secretary of Energy and Environmental Affairs, Executive Office of Energy and Environmental Affairs (EEA), Attn: MEPA Office, Alexander Strycky, EEA No. 16311, 100 Cambridge Street, Suite 900, Boston MA 02114

Submit input to Aries Clean Technologies:

- Mark Lyons, Director of Business Development – New England
- [mark.lyons@ariescleantech.com](mailto:mark.lyons@ariescleantech.com) or (615) 813-9400

The MEPA review is the beginning of the environmental review process. Later in the process Aries Clean Technologies will submit permit applications to the Massachusetts Department of Environmental Protection (MassDEP). There will be an additional public involvement process during the MassDEP review.

