

## Air Quality



ecomaine maintains high removal efficiency of pollutants from emissions by using state-of-the-art air pollution control technology. Annually ecomaine tests levels of: hydrogen chloride, particulate matter, ammonia, cadmium, lead, mercury, and dioxin/furans and continuously monitors SO<sub>2</sub>, NO<sub>x</sub>, CO and opacity.

ecomaine's air pollution technology includes:

- **Electrostatic Precipitators:** Six ionized curtains with five hoppers that, in conjunction with precipitator optimization systems eliminate 99% of particulate from emissions and 95% removal of metals such as cadmium and lead.
- **Activated Carbon:** An injection system captures particles containing mercury and dioxin/furan.
- **Lime Slurry:** Spray dryer absorbers are extremely effective at neutralizing 87% of sulfur dioxide and 90% of hydrogen chloride from acid flue gases.
- **SNCR System:** (Selective non-catalytic reduction) Reduces nitrogen oxide (NO<sub>x</sub>) emissions by 35-40%. This system injects urea into the boiler and breaks nitrogen oxide down into simple nitrogen, CO<sub>2</sub> and water.

## ISO 14001:

ecomaine's Environmental Management System is based on the international standard called ISO 14001 which requires environmental stewardship as part of ecomaine's daily activities. The system is a set of procedures that define how an organization will manage its potential impacts on the environment. In a rare accomplishment, all three of ecomaine's facilities – waste-to-energy, recycling center and ashfill/landfill - are ISO 14001 certified.

## ISO 45001:

The environmental department also worked with our safety personnel to achieve ISO 45001 certification for Health & Safety Management.

# ecomaine



# ecomaine Environmental Department

## Overview

ecomaine has three facilities, each of which is closely monitored by our Environmental Department to ensure none of its operations adversely impact the local environment.



We consistently meet or exceed requirements from the Maine Department of Environmental Protection, the U.S. Environmental Protection Agency as well as the high standards of our 65+ member communities





## Water Quality

ecomaine evaluates the quality of storm water and surface water that surround its three facilities. ecomaine consistently demonstrates through its tests that our operations do not adversely impact surrounding waters.

Sampling locations are strategically selected around the three ecomaine facilities to track pollutants — if they existed — back to specific activities.



The landfill/ashfill employs, among other methods, groundwater monitoring wells and a web of underground pipes that collect leachate for proper disposal.

From daily sweeping of paved areas to routine litter patrols, good housekeeping is also an important part of our practices to minimize the risk of pollutants becoming part of surface water runoff.

## Ash Characterization



The ash from ecomaine's waste-to-energy facility is a non-hazardous, chemically stable material which is permitted for disposal at ecomaine's landfill/ashfill.

ecomaine performs a rigorous ash monitoring regime meeting the regulatory requirements for metal analyses using the Toxicity Characteristic Leaching Procedure (TCLP). The metals analyzed include: arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.



*For more information on our Environmental Department, visit [www.ecomaine.org](http://www.ecomaine.org)*

## Management Systems



- 1) The **ecomaine waste-to-energy** facility is licensed to process 550 tons of municipal solid waste (MSW) per day to generate more than 100,000 megawatts of electricity annually—enough to power 15,000 homes in the region.
- 2) Our **recycling center**—Maine's first single stream system—takes in more than 35,000 tons of recycled material annually by using state-of-the-art technology.
- 3) ecomaine's **landfill/ashfill** spans 274-acres, it contained MSW from 1978-1988. And has contained only Ash from the WTE facility since the plants' construction in 1988.