

# DARCO® BG 1 ACTIVATED CARBON REMOVES HYDROGEN SULFIDE WITH LESS MEDIA AND LASTS LONGER



**Location:** Southbridge, MA

**Overview:** Gas collection wells gather gas generated by decomposing waste. First, the gas is treated to remove sulfur, then converted into electricity, which is sent to the grid. They use a 6-megawatt capacity generator, which is sufficient to power 2000 homes.

*“Good business reasons. Good environmental reasons. And good common-sense reasons. I think that was enough to let [Norit’s] product work here. It has worked well and we’re very happy.”*

*- Thomas Cue  
Director of Landfill Development*

## ABOUT SOUTHBRIDGE RECYCLING

Opened in the early 1980s, the 52-acre landfill was the state’s largest active landfill, it is owned by the Town and is currently operated by Casella, a firm specializing in municipal solid waste management. It's a full-service operation using modern techniques of waste disposal and adhering to rigid environmental standards.

The landfill closed in 2018 and needed to find permanent solutions to remove H<sub>2</sub>S, and reduce odor and hazardous waste. A biogas-to-power facility was installed that originally used iron oxide media for H<sub>2</sub>S removal. But there were several challenges.

## KEY CHALLENGES



**Neighbors complained about the smell from the landfill gases**



**Frequent and time-consuming media removal and replacement**



**Iron oxide media bricking makes change outs difficult**



**Exothermic reactions had to be managed**

## SOLUTION

Southbridge recycling modified its vessels to be able to use DARCO BG 1 to remove H<sub>2</sub>S to biogas specifications. The amount of activated carbon needed for the job was half of iron oxide and lasted 17 times longer than the iron oxide media. Changing out the DARCO BG1 was much faster and easier with no self-heating and no bricking, creating costs savings for both media and change out services. Additionally, the spent DARCO BG 1 does not need to be incinerated and is safe for landfill disposal.



*“For anybody with a sulfur issue, a smell issue, a gas issue that they have to treat, this would be the product I would suggest.”*

**- Thomas Cue, Director of Landfill Development**

## RESULT

By switching to DARCO BG1, Casella is saving more than \$600,000 per year in media and service costs alone, a greater than 55% savings. There are no more exotherm issues to deal with and the spent media is easily vacuumed from the vessels.



**Longer lasting media**



**Easier change out**



**Eliminated odors**



**Greater H<sub>2</sub>S removal**



**Cost savings**

## ABOUT NORIT

Norit Activated Carbon is the world's largest and most experienced producer of activated carbon. Norit products are used to remove pollutants, contaminants and other impurities from water, gas and air, food and beverages, pharmaceutical products and other liquids in an efficient and cost-effective manner. Building on a 100+ year history of innovation, we have created more than 150 different grades of activated carbon so that customers get precise solutions.