

# WASTE MANAGEMENT STRATEGIES AND METRICS

Ethan Allen locations have continuously worked on reducing waste in all forms. By decreasing the volume of waste generated and transitioning hazardous waste to nonhazardous forms, we changed the regulatory classification of several manufacturing locations, from large-quantity generators to very-small-quantity generators. For our manufacturing division, this transition has involved two main steps: reformulating our finishes and coatings to minimize the toxicity of chemical components, and upgrading our finishing processes to more efficient methods.

## NONHAZARDOUS AND HAZARDOUS WASTE GENERATION FROM DOMESTIC MANUFACTURING

2018 NONHAZARDOUS WASTE MANAGEMENT		
<b>TOTAL GENERATED NONHAZARDOUS WASTE IN 1,000 LBS.</b>	<b>87,917</b>	
	<b>1,000 LBS.</b>	<b>PERCENTAGE</b>
<b>REUSED OR RECYCLED NONHAZARDOUS WASTE INCLUDING:</b>	<b>86,188</b>	<b>98.03%</b>
SHIPMENTS TO OFF-SITE WASTE-TO-ENERGY FACILITIES/ RESOURCE RECOVERY FACILITIES	91	0.11%
WASTE REUSED OR RECYCLED BY OTHER METHODS	1,590	1.84%
WOOD MATERIALS UTILIZED IN ON-SITE WOOD-FIRED BOILERS	84,507	98.05%
<b>LANDFILLED WASTE</b> (THIS EQUATES TO .002 LBS. OF LANDFILLED WASTE PER SALES DOLLAR)	<b>1,820</b>	<b>1.97%</b>
<b>HAZARDOUS WASTE MANAGEMENT IN 1,000 LBS.</b>	<b>86.2</b>	

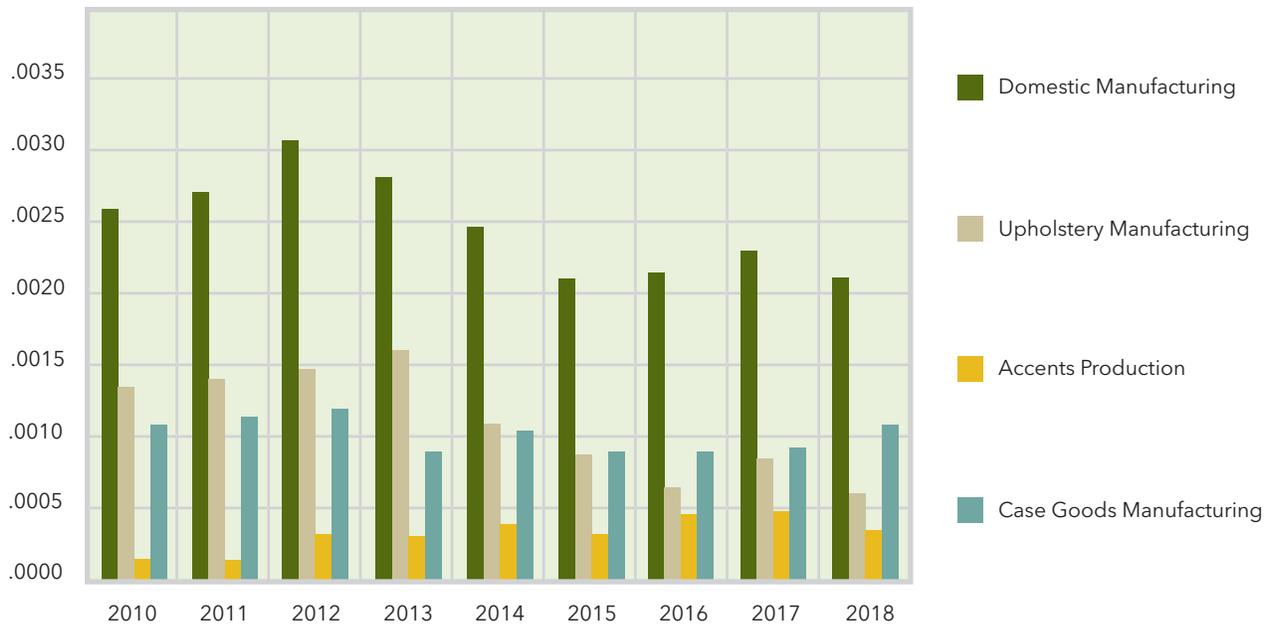
### LANDFILLED WASTE DATA FOR GENERATED NONHAZARDOUS WASTE

Ethan Allen nonhazardous waste goals do not focus on waste-to-energy facilities for trash management but rather on eliminating the generation of waste that ends up in landfills, although we recognize that municipalities have long used waste-to-energy facilities nationwide for resource recovery, and a major percentage of municipalities perform waste-to-energy combustion. Municipal waste authorities in some states burn up to 10% of their accumulated trash in waste-to-energy facilities, and other municipalities follow similar methods. In our calculations, we estimate 5% of our trash is destroyed using waste-to-energy methods. Although municipal solid waste combustion is regulated under the Clean Air Act, we typically remain concerned about potential health impacts of such waste-to-energy practices on our communities.

## RECYCLING

Since 2010, recycling volume for Ethan Allen has fluctuated throughout the reporting period, increasing dramatically at first but then decreasing over time, in terms of both rate of recycling and mass of recycled materials. This reduction may appear to be a negative indicator, but the opposite is true: reduced recycling volume, along with a reduction in landfilled materials volume, shows that the overall amount of material used in our processes and products is being reduced, in alignment with our stated goal of minimizing the amount of waste generated by our operations. The fact that we are not generating more materials to recycle, while also generating less mass that goes into landfills, means we are becoming more efficient in both our packaging and our operations.

**RECYCLING IN POUNDS PER SALES DOLLAR**



## PACKAGING MATERIAL

Ethan Allen's strategy is to minimize, repurpose, or recycle as much packaging material as possible from our manufacturing, distribution, and service centers as well as from deliveries to our customers. During deliveries, our associates utilize reusable furniture blankets in lieu of extra shrink wrap and other disposable protective materials. In addition, many packaging components that protect the furniture, such as the polypropylene foot protectors from furniture legs, are reused. At our distribution and service centers, we remove packaging before delivery and either separate, reuse, or recycle it. Such efforts have proven to be cost-effective: by repurposing existing materials and eliminating waste, we are reducing the volume of packaging material needed.

Ethan Allen's Shrink Smart program is another example of how we reduce our packaging's environmental impact by using less material throughout the product lifecycle. Instead of using pre-sized bags to wrap furniture, our environmental team cuts custom lengths of shrink wrap for upholstery, which both eliminates waste and lowers costs.

## ELECTRONIC WASTE DISPOSAL

Ethan Allen's goal is to ensure that electronic waste is managed to comply with all state, federal, and international rules and regulations. Our associates work hard to see that electronic waste is appropriately recycled, all hard drives are erased or destroyed, and all metals are recycled via smelters within the United States. Additionally, we also work to reuse and repurpose in-house electronics.

## GENERATED HAZARDOUS WASTE

Ethan Allen established a program for waste determination and classification as well as for treatment, storage, disposal, and recycling requirements for waste disposal companies. Ethan Allen's strategy for accumulated waste is to manage hazardous materials toward recycling, incineration, and fuel blending; we only use landfills as a last resort. The main purpose of this program is to reduce waste generation, toxicity, and our overall liability for these materials, from cradle to grave.

One hundred percent of Ethan Allen's hazardous waste emissions are regulated under federal and state law; no hazardous wastes generated in the U.S. are sent outside the borders of the United States. The following graph shows the generation of hazardous waste from our domestic manufacturing facilities:



Our strategy for hazardous waste is to be 100% committed to implementing waste minimization programs and/or enhancing existing programs with the targets of 1) reducing the total volume of waste, 2) limiting the liability associated with waste disposal, and 3) continuously improving environmental and job safety programs on the factory floor, minimizing both emissions and safety risks for employees.

## GOALS AND TARGETS AND OTHER REGULATED EMISSIONS

The furniture industry is heavily regulated, and all operations must comply with the laws of each country in which our products are sold. Harmful chemicals are specifically regulated under the industry category for furniture and furniture manufacturing under the federal requirements, as well as by state authorities, who supervise application of state laws and regulations under each specific state implementation plan (SIP). Regulations include but are not limited to the following:

- National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Wood Furniture Manufacturing Operations
- Volatile Organic Compound Emissions and the Maximum Achievable Control Technology, as described under 40 CFR Part 63, Subpart JJ, "National Emission Standards for Wood Furniture Manufacturing Operations"

To assess and manage the risks and hazards associated with harmful chemicals included in Ethan Allen processes, we conduct a substantial review of chemicals and materials. The goal is to be in 100% continuous compliance with the requirements of any applicable statutes and regulations and specifically, to comply with each environmental permit.

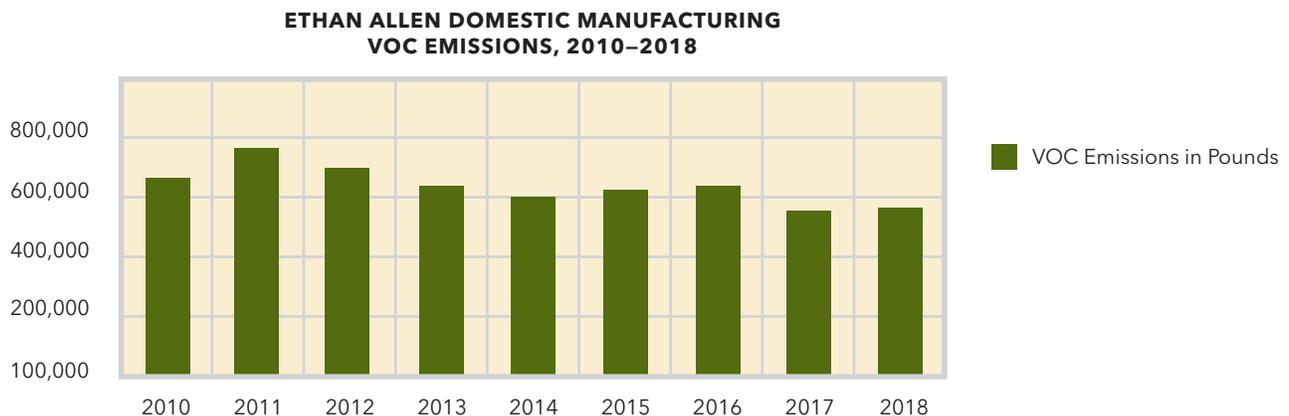
To achieve compliance, Ethan Allen has developed several systems to determine whether a chemical is acceptable for use. Chemicals used in manufacturing undergo a system review, which is used to screen chemical components within the finishes or stains we use. From each chemical manufacturer, Ethan Allen obtains the relevant chemical formulation, which we download into a system designed to identify chemical components, including any hazardous or potentially hazardous chemicals, toxic chemicals, hazardous air contaminants, and hazardous air pollutants. This system also identifies volatile organic compound (VOC) content and concentration for all materials used in our manufacturing process.

## USE OF LOW-HAP AND LOW-VOC MATERIALS

To prevent toxic air emissions, Ethan Allen has traditionally worked with our chemical suppliers to reduce, control, and/or eliminate hazardous chemicals in the finishes sprayed onto our products. Through strong partnerships with our chemical suppliers, we have reduced chemical toxicity and associated hazards, thus protecting our employees and further reducing emissions from our processes. Examples of this strategy and material targets include.

- applying water-based coatings to our products where appropriate;
- establishing practices to reduce toxic chemicals in our packaging materials;
- eliminating the use of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) in our packaging materials;
- substituting water-based material for the solvent-based foam in our packaging materials; and
- using only low-HAP and low-VOC coatings and updating associated processes.

The following graph notes the total amount of VOCs emitted from our domestic manufacturing locations:



## NITROUS OXIDES (NO<sub>x</sub>), SULFUR OXIDES (SO<sub>x</sub>), AND OTHER REGULATED EMISSIONS

Our chemical emissions come mainly from manufacturing processes, including boiler operations and finish application. Because Ethan Allen has self-limited emissions in our manufacturing permits to keep them below major-source-emissions thresholds, state and federal agencies categorize Ethan Allen's operations both "less than major" and "less than significant" sources of these pollutants.

Boiler operations are regulated under the provisions of Reasonably Available Control Technology (RACT), where a state or federal agency may establish and include, within any permit to operate, emission control requirements based on reasonably available technologies. The targets for Ethan Allen operations, in terms of NO<sub>x</sub>, SO<sub>x</sub>, and other regulated air emissions such as hazardous air pollutants (HAP), are 1) to keep these emissions, currently and in the future, 100% below regulated thresholds for implementing RACT and 2) to keep them well below thresholds for Maximum Achievable Control Technologies (MACT).