



# Sustainability at Clean Harbors



**Front cover:** Our fleet refurbishment facility in Kingston, Massachusetts, exemplifies our corporate sustainability initiatives. Solar arrays generate sufficient electricity for the facility to be self-sustaining. Interior and exterior lighting has been upgraded with LED fixtures to reduce energy usage. Energy-efficient rotary screw air compressors help run the refurbishing operations.

As our lead refurbishing facility, new vehicle parts and operating processes are first tested here, before rolling out to the Company's other refurbishment locations. Improved operational efficiencies allow a heavy-duty vacuum truck, or other specialty truck, to be refurbished 40% faster than what was required two years ago. Process improvements have helped sustain the facility's impressive safety record, with no safety incidents and a Total Recordable Incident Rate (TRIR) of zero, since its opening in 2013.

Our OilPlus® Program utilizes specially designed tank trucks that allow us to pick up used oil from our customers and deliver new oil at the same time. These, and other specialty trucks, are refurbished at the rate of two per week, putting safer, more fuel-efficient vehicles back on the road.



## Contents

A LETTER FROM OUR CHAIRMAN	3
SUSTAINABILITY & CLEAN HARBORS	4
HEALTH & SAFETY	6
CUSTOMER SOLUTIONS	10
ENERGY USAGE	15
OPERATIONS	18
SUPPLY CHAIN	22
ENGAGEMENT	24



## A Letter from Our Chairman

With unwavering diligence, Clean Harbors pursues sustainable business practices that continuously improve business performance and increase long-term value for shareholders. These efforts support our commitment to be a trusted environmental service provider and our steadfast focus on meeting today's growing environmental needs in a safe and responsible way.

The Company's sustainability program centers on six core strategies. Guided by these strategies, we have implemented programs and practices within key areas of our operations, including the Safety-Kleen OilPlus® Program and our comprehensive health and safety initiatives. We also have increased efficiencies through ongoing process improvements in areas such as our asset refurbishment initiative.

The results of these and other efforts, as well as a preview of future sustainability initiatives, are presented on the following pages. We are excited to share what we have already accomplished and what we plan to achieve in the future.

As we move toward a more sustainable future, we hope our customers, suppliers, investors and other stakeholder communities will join us on this journey.

Alan S. McKim

A handwritten signature in black ink, reading "Alan S. McKim". The signature is written in a cursive, flowing style.

"We believe sustainability is a basic business practice that adds long-term value for our shareholders, customers and employees." — Alan S. McKim

# SUSTAINABILITY & CLEAN HARBORS

Our comprehensive sustainability program is focused on the following strategies:



## Health & Safety

Making health and safety a priority in everything we do



## Customer Solutions

Implementing the most sustainable customer solutions available



## Energy Usage

Maximizing energy conservation across the organization



## Operations

Ensuring operations, policies and procedures contribute to a more sustainable world



## Supply Chain

Managing risk and driving integrity through supply chain management



## Engagement

Leveraging our leadership position to educate, inform and connect





## Sustainability Program

Clean Harbors recognizes that sustainability stewardship is a core aspect of our brand and a key component of our long-term business success. Sustainability is our responsibility to the environment, society and the economy. We are committed to working with stakeholders to enhance business value while minimizing negative impacts and seeking opportunities for improvement.

Our program demonstrates several of the Company's objectives:

- To identify key impact areas within the three elements of sustainability (environmental, social and economic);
- To measure those key impacts, set targets and manage performance;
- To continuously improve, based on ongoing evaluation of our impact areas;
- To prevent pollution and comply with all applicable legal and regulatory requirements; and
- To leverage our operations, our supply chain, and our products and services to improve sustainability performance.

In support of these commitments, Clean Harbors will continue to assess the environmental, social and economic impact of our operations and our products. We will use information gathered through our ongoing sustainability efforts to identify enhancements to our business model, as well as specific activities that could mitigate the Company's impacts on the environment, society and the economy.

# HEALTH & SAFETY

Safety is the hallmark of our Company, and we will never compromise on it. The No. 1 responsibility of our management team is to make sure that every single employee is protected on the job each day and goes home safely each night.

Safety is also at the heart of what we provide to customers. They expect us to deliver unparalleled safety, whether we are helping prevent the release of hazardous materials into the environment or, in situations where that has already occurred, helping recover and decontaminate any pollutants that have been released.

Clean Harbors has harnessed the philosophy and practice of delivering safe service to build a comprehensive health and safety approach to the entire business. This approach benefits everyone – our employees, customers, local communities and other key stakeholders.

# Safety Starts with Me: Live It 3-6-5

In 2013, the Company introduced a new approach to safety – one that would further instill safety into the fabric of everything we do.

The “Safety Starts with Me: Live It 3-6-5” program is designed to improve safety in the communities where we live and work by lowering our incident rate of injuries. Our goal is for Clean Harbors to constantly strengthen its excellent health and safety performance by posting year-over-year improvements in three key safety measurements: Total Recordable Incident Rate (TRIR); Days Away, Restricted or Transferred (DART); and Experience Modification Rate (EMR).

The program focuses on the role that safety plays in all aspects of our employees’ daily lives. It enables them to be leaders in safety by recognizing the importance of protecting themselves, their families, their fellow employees, our customers and everyone around them. Safety Starts with Me: Live It 3-6-5 is our commitment to making the protection of our employees and others the top priority in everything we do.

## Safety Starts with Me: Live It 3-6-5 is our commitment to:

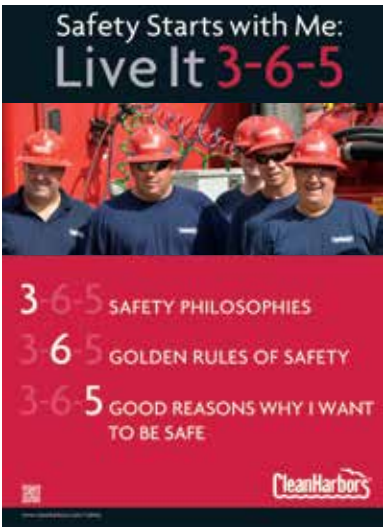
### 3 Safety Philosophies

- 1. Nothing is worth getting injured over
- 2. All near misses and accidents are preventable
- 3. Safety must actively be managed

### 6 Golden Rules of Safety

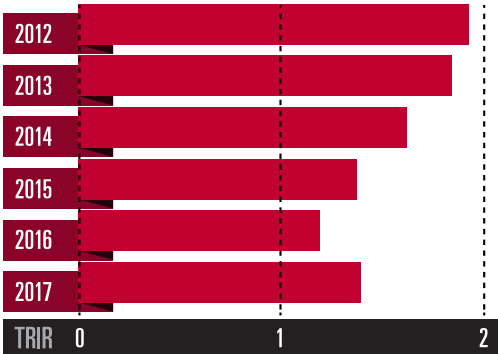
- 1. I will drive responsibly without distractions or impairments
- 2. I will think before I start the task and know my safety plan every day
- 3. I will undertake only the work in which I'm trained
- 4. I will take responsibility for my safety and that of those around me at work or home or in transit
- 5. I will intervene to halt any unsafe act
- 6. I will report all incidents and near misses

### 5 Personal Reasons to be Safe





The program continues to be refined each year as we implement new opportunities for improvement. The program has shown immediate success through better safety metrics as well as a complete organizational focus on making safety the Company's No. 1 priority.



TRIR is a mathematical computation that takes into account how many Occupational Safety and Health Administration (OSHA) recordable incidents a company has per number of hours worked.

The Safety Starts with Me: Live It 3-6-5 program includes two main components that ensure the Company's safety principles and related policies and procedures are followed throughout an employee's tenure.

Start-Safe

The Start-Safe program is a cultural training initiative that immerses new employees in the Clean Harbors safety culture. The program supplements our regulatory and safety training programs, as well as on-the-job skills training (i.e., “how” to do the job), with education modules and mentoring (i.e., “why” do the job safely). All are designed for an employee's respective line of business.

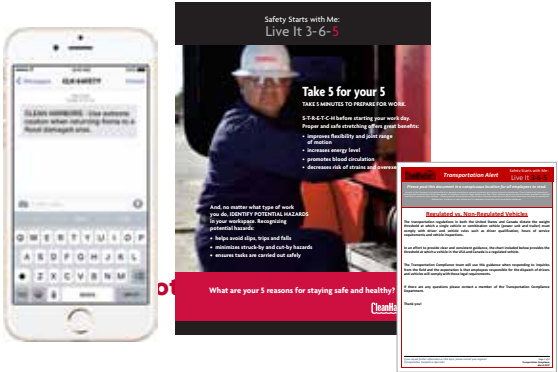
Stay-Safe

The Stay-Safe program, a continuation of safety awareness, is designed to ensure that every Clean Harbors employee receives ongoing safety education.

Every month, safety modules that include video learning and interactive group safety scenarios are distributed to all employees. A “My Safety Story” video module is posted to illustrate the safety topic for the month. Additionally, a “Leaders Module” is published monthly to present best practices, assessments, tools and practical tips, all designed to assist leaders in underscoring the Company's strong safety culture, policies and practices.

Safety Communications

Building safety into the Company's culture requires multifaceted communications that deliver consistent, sequential messaging across the organization. Each year, a comprehensive communications plan is developed to present new strategies and themes via multiple channels, including posters, emails, text messages and videos.



Voluntary Protection Program

For more than a decade, Clean Harbors has participated in the U.S. Occupational Safety and Health Administration (OSHA) Voluntary Protection Program (VPP). VPP sets performance-based criteria for a managed safety and health system, invites sites to apply and then assesses applicants against these criteria. OSHA's verification includes a rigorous on-site evaluation by a team of OSHA safety and health experts.

Acceptance into VPP is OSHA's official recognition of employers and employees who have achieved outstanding occupational safety and health performance.

OSHA approves qualified sites for one of three VPP programs, with the Star Program being the highest level of accomplishment. Star Program approval recognizes employers and employees who demonstrate exemplary achievement in preventing and controlling occupational safety and health hazards and in developing, implementing and continuously improving their safety and health management systems.

Clean Harbors currently has six hazardous waste management facilities admitted into the VPP Star Program, with additional sites in various stages of the VPP process.

Current VPP Star Sites:

- Baltimore, MD
- Cincinnati, OH
- Kimball, NE
- El Dorado, AR
- Lone Mountain, OK
- Reidsville, NC (Plant Facility)

### **Sites with Active VPP Projects:**

- Buttonwillow, CA
- Chattanooga, TN
- Chicago, IL
- Deer Park, TX
- Reidsville, NC (Technical Services Group)
- Aragonite, UT

### **Certificate of Recognition and Safety Management Assessment Participation**

Clean Harbors maintains memberships in a variety of industry organizations dedicated to promoting and improving safety through cooperative efforts. In Canada, we have participated in several provincial Certificate of Recognition (COR™) programs, as well as the Industrial Educational Cooperative Safety Management Assessment (IEC SMA).

The Certificate of Recognition and the Safety Management Assessment require a comprehensive analysis of the Clean Harbors safety management system through internal and external audits and provide a framework through which we continually improve our systems and processes to keep employees safe.

### **Wellness Program**

The health of our employees directly affects both the quality and safety of the service we provide to our customers and the well-being of the communities where we live. Good employee health begins with education

and prevention. Our informative “My Health. My Choice.” Program was developed to help employees make the best health decisions for themselves and their families.

This comprehensive Clean Harbors initiative helps educate our employees about how to make their lives sustainable through proper nutrition, exercise, preventive health and healthy life choices. It goes a step further by taking a holistic approach toward overall well-being.

At Clean Harbors, we believe well-being involves every dimension of life – including physical health and safety, mental/emotional health, personal relationships and work. The program provides incentives and rewards designed to encourage greater employee well-being, resulting in a stronger, healthier employee and safer work practices.

- Health Tracking Tools
- Exercise and Nutrition Planning
- Wellness Library
- Tobacco Cessation
- Fitness Membership Discounts
- Online Competitions

*One of the best benefits  
Clean Harbors offers is  
My Health. My Choice.*

*- Lisa, Customer Service Representative*


During a VPP recertification at a Clean Harbors facility, an OSHA official was impressed by the Company’s safety education efforts. After stating that the facility was one of the best in the country, the OSHA representative asked Clean Harbors to present its Start-Safe and Stay-Safe programs at OSHA’s national conference, noting these are the types of programs that should be implemented at other VPP sites.



# CUSTOMER SOLUTIONS

Technologies continue to evolve to meet growing expectations for sustainability. At the same time, companies are constantly looking for operational efficiencies that support sustainable business practices. When these two business drivers interlock, organizations can build transformative solutions for the marketplace.

Clean Harbors has developed initiatives that focus on improving the Company's and our customers' impact on the environment. Our technologies and increased operational efficiencies have allowed us to deliver innovative customer solutions that show our commitment to sustainable methodologies and transform the way we do business.



Our re-refineries have

# RE-REFINED MORE THAN 3.1 billion GALLONS OF USED OIL

This helped avoid over 24 million metric tons of greenhouse gas (GHG) emissions. That's the equivalent of growing 620 million trees for 10 years in an urban environment or taking more than 4.4 million passenger cars off the road for a year.<sup>1</sup>

<sup>1</sup>GHG reduction is based on LCA: Safety-Kleen Product Carbon Footprint for Re-refined Base Oil, performed by Ramboll Environ International Corporation, Denver, CO. Greenhouse gas equivalencies are based on EPA Greenhouse Gas Equivalencies Calculator (<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>).



**Safety-Kleen OilPlus® Program**

Our Safety-Kleen business offers a program, unique to the oil industry, which is designed to help companies manage their oil needs in a more sustainable way. The Safety-Kleen OilPlus® Program provides superior used oil pickup, along with reliable delivery of high-quality oils and lubricants. The result is greater efficiencies, guaranteed sustainable processing and a direct reduction in GHG emissions.

**Oil Collection**

Using advanced logistics tools, we deploy our fleet of trucks, tankers, rail-cars and barges to collect used oil from thousands of locations across the United States, Canada and Puerto Rico. Our expert service representatives collect this oil using the industry’s safest and most efficient methods.

**Re-refining and Blending**

Every year, Safety-Kleen returns more than 200 million gallons of collected used oil to the marketplace as clean, pure motor oil and associated products. Our state-of-the-art processes enable us to fully realize oil’s remarkable capacity to be recycled, re-refined and reused indefinitely, with quality equal to or better than lubricants made from virgin crude.

Oil re-refining reduces greenhouse gases and heavy metal emissions, compared to burning used oil as fuel. Our re-refining process is also easier on the environment, since it requires up to 80% less energy to produce reclaimed oil than to refine oil from crude.

Just one gallon of reclaimed motor oil produces the same amount of engine oil as 42 gallons of crude. Re-refining is simply a better way to manage used oil, making it a renewable resource that is easier on the environment.

Safety-Kleen’s advanced re-refining technologies and processes have earned the latest ISO9001:2015 certification.

Our re-refineries have re-refined more than 3.1 billion gallons of used oil, avoiding over 24 million metric tons of GHG. According to the U.S. Environmental Protection Agency (EPA), that’s the equivalent of growing 620 million trees for 10 years in an urban environment or taking more than 4.4 million passenger cars off the road for one year.<sup>2</sup>

**New Products Returned to Market**

The re-refined oil we produce is used in numerous engine oil and industrial lubricant brands, including our own Performance Plus® and EcoPower®. These products meet or exceed the same exacting standards applied to oil made from virgin crude, allowing corporate customers and consumers to realize the dual benefit of protecting both their engines and the environment.

By having us collect used oil and deliver new re-refined oil products, customers are implementing a quintessential closed-loop process for sustainability to the oil industry. To maximize delivery efficiency, reduce energy use and lower GHG,

Clean Harbors has designed custom, multi-compartment trucks that can be used to collect and deliver oil at the same time. This innovative delivery system – unique in the industry – brings the world’s most sustainable used oil program to North America.



Base oils\* from our East Chicago refinery have been registered with the European Union REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) compliance standards, allowing them to be purchased and used in countries that require REACH compliance.

\* Base oils RHT 70, 120 and 240

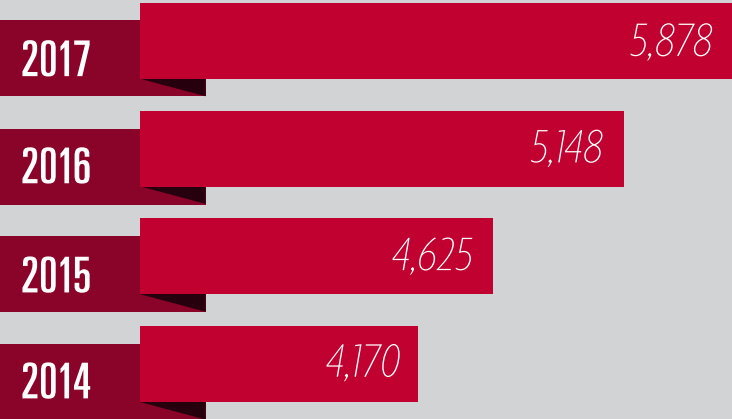
<sup>2</sup>ibid., 14

Emergency Response Services

Every year communities suffer from the effects of both natural and man-made disasters.

From the devastation of hurricanes, such as Sandy, Harvey and Irma, to the oil spill off the Gulf Coast in 2010, Clean Harbors has deployed its vast array of assets to help clean up the damage. With more than 350 service locations in North America, Clean Harbors has the manpower, equipment and technical expertise to manage any size environmental emergency on land or water. In a typical year, we respond to some 5,000 emergencies, large and small, including oil spills, hazardous waste dispersals, hurricanes and tornadoes.

Number of Emergency Responses by Clean Harbors across North America



Parts Washer Solvent Technology

Safety-Kleen is at the forefront of cleaning chemistry technologies for parts washer machines. Aqueous cleaners are water-based solutions that, unlike petroleum-based solvents, are typically nonflammable and contain little or no volatile organic compounds (VOCs). As individual states and Canadian provinces started requiring aqueous solutions, Safety-Kleen remained a leader in the field by transitioning customers to environmentally friendly solutions.



Safety-Kleen has partnered with Church & Dwight, the maker of Arm & Hammer™ products, to form The ArmaKleen™ Company. Together, we have developed the industry’s most environmentally functional and productivity-boosting aqueous cleaners. With more and more companies actively looking to protect their workers and meet strict environmental regulations, ArmaKleen offers the ideal solution with a versatile, proven line of aqueous cleaners that is both economical and earth-friendly.



ArmaKleen Bio24 is the latest super-concentrated, water-based industrial parts washing cleaner/degreaser. It is USDA Certified as a BioPreferred® product and contains 72% sustainable bio carbon-containing ingredients (surfactants and additives) that are derived from plants and other renewable agricultural, marine or forestry materials.

ArmaKleen Bio24 complies with the Green Seal GS-34 Standard for Cleaning and Degreasing Agents.

Solvent Recycling

Recycling and reusing solvents is a sustainable alternative for any business. Our strategically located facilities can recycle used solvents to exact specifications. Our tolling programs provide a closed-loop cycle in which a customer’s spent solvents are recycled to precise specifications and returned directly to the customer. Other solvents are recycled to our own specifications for use or resale.



### Chemical Recycling and Reuse

Companies committed to waste minimization, good product stewardship and the Responsible Care Program<sup>3</sup> can benefit by having their chemical solvents recycled. Our chemical recycling and reuse initiative provides a comprehensive, step-by-step approach that evaluates customers' R&D and manufacturing operations and pursues opportunities for waste reuse, recycling or reclamation. Whether the waste stream is sold as is, recycled or reused, the impact on the environment is minimized.

### Ozone-Depleting Substance Destruction

Clean Harbors has become the leading North American provider of services to protect the ozone layer from the destructive effects of Montreal Protocol-identified ozone-depleting substances. These substances have a high potential to fuel global warming and, in some cases, contribute more than 10,000 times more to global warming than does carbon dioxide. The compounds include typical refrigerants, such as chlorofluorocarbon (CFC) and hydro chlorofluorocarbons (HCFCs), and fire suppression chemicals such as halons and carbon tetrachloride.

Since 2013, the California Air Resources Board has issued close to 8 million emission reduction credits generated by our destroying CFCs at the Clean Harbors incinerator in El Dorado, Arkansas. Roughly 8 million metric tons of carbon dioxide emissions were avoided by destroying these greenhouse gases. That is equivalent to removing more than 1.67 million passenger vehicles from the road for one year.

### Fuel Blending

Our fuel blending operations provide an economical and environmentally friendly recycling option for solvent-based liquids, solids and sludge. The process blends organic waste streams into alternative fuel to be used as an energy source in manufacturing cement. The process conserves natural resources by replacing coal, oil and other fossil fuels.

### Light Bulb Recycling

We process straight tubes, U-tubes and circular lamps using a sophisticated material separation technique. The recycling process for fluorescent bulbs separates the metal, glass and mercury-containing phosphors. All components of the bulb are either 100% recycled or reused, offering a responsible alternative to landfill.

### Electronic and Obsolete Equipment Recycling and Disposal Services

Clean Harbors uses a process of breaking down items in order to separate material that can be recycled from waste for disposal. We ensure that equipment is de-manufactured and that hazardous components are identified and removed for proper disposal. Materials for recycling are then economically managed for recycle value, all in accordance with applicable regulations.

<sup>3</sup>The Responsible Care Program is a global, voluntary initiative developed by the chemical industry to help member companies significantly enhance their performance and improve the health and safety of their employees, the communities in which they operate and the environment as a whole.

# ENERGY USAGE

One of the Company's sustainability goals is to contribute to a cleaner environment by reducing energy usage, specifically our dependency on fossil fuels. We use energy in two main business areas: electricity for our facilities and fuel for our vehicles.





## Facility Energy Management Program

With annual electricity spending approaching \$28 million, Clean Harbors has taken specific steps to measure and manage energy usage at our 450-plus facilities.

We have partnered with Schneider Electric to implement its EcoStruxure™ Resource Advisor™ application, which collects and aggregates cross-enterprise information and sustainability metrics. In 2018, as part of our formal Facility Energy Conservation (FEC) Program, we started providing ongoing reporting and reduction recommendations to each facility to help support their electricity management efforts.

We formed the FEC Advisory Committee to help oversee the FEC Program. The Committee comprises knowledge experts from each of our different types of facilities (e.g., re-refineries, incinerators, branch offices) and functional experts from finance, purchasing, sustainability and risk management. To support program goals, the Committee focuses on facility-specific initiatives that reduce energy consumption and then applies these initiatives across similar facilities or the entire operational network.

Water and other energy sources, such as natural gas, can also be managed using the Resource Advisor application and will be considered for future development.

## Solar Energy

We continue to evaluate solar energy as a viable option for our facilities and, in some cases, use solar energy now. Our 1.5 MW solar array at a closed and capped landfill in New Jersey remains operational and provides virtually all of the power needed to operate a groundwater decontamination pump and treatment system at an otherwise unusable Brownfield site.



A second Brownfield facility, located in Kingston, Massachusetts, has been updated to be powered by a solar energy system. The system generates enough electricity to make the facility net zero for total electricity usage.

We're assessing systems options for similar-sized facilities and have implemented solar systems at some smaller facilities, such as one of our collection buildings in Charlotte, North Carolina.

## Fleet Energy Management

As the 23rd largest transportation fleet in North America, Clean Harbors makes fleet management and energy conservation a key focus. Fleet energy management begins with a logistics team that reviews fleet routing to reduce total miles driven. There is no set reduction goal; instead, a methodology of continuous improvement is utilized.

Our asset management team routinely evaluates new processes and equipment options for reducing fuel costs. This has led to the following initiatives that have been applied across the entire corporate fleet, based on both physical and economic viability:

- Routine use of rail transportation to offset the need to transport customer waste materials by truck;
- Implementation of alternative fuel vehicles, including 17 new Compressed Natural Gas (CNG) and Liquid Natural Gas (LNG) vehicles strategically located across our North American footprint to ensure the most efficient use of the available fueling infrastructure;
- An aggressive Equipment Lifecycle Management Program in which we proactively replace high-mileage tractor units with new tractors. These tractors are ordered and equipped with both roof and chassis fairings for advanced aerodynamics and lower weight;
- Equipping all 53-foot van trailers with side skirts, fairings and low roll-resistant tires; converting all to Performance Plus® and EcoPower® re-refined engine oils;

- Purchase of Goodyear® Assurance Fuel Max® retread products. We can reuse a casing up to two times and have sustained a 2-3% fuel efficiency increase;
- Installation of computerized auto-idler systems on our over-the-road transportation vehicles to prevent idling for more than five minutes;
- Installation of auxiliary power units (APUs) in over-the-road transportation vehicles with sleeper cabs, allowing drivers to stay in their vehicle overnight without running the truck's engine to heat or cool the sleep unit;
- Installation of Teologis® electronic logging device (ELD) vehicle performance programs that track engine and vehicle efficiencies and measure many statistics, including fuel efficiency and idle time;
- Installation of governors that prevent vehicles from driving over 65 mph;
- Re-burn systems for all new vehicles that regenerate engine fumes, resulting in emissions that are cleaner as they enter the atmosphere;
- Replacement of older diesel- and propane-powered forklifts with electric technology where possible;
- Sourcing solar panels for power assist on lift gate vehicles and reducing the cost and frequency of battery replacements; and
- Use of a tiered parts program to add manufactured items to our inventory for purposeful installation.



We continue to focus on several key initiatives to achieve our goals for alternative fuels and reduced energy usage by our fleet:

- Providing light electric vehicles for our InSite Services® employees, who perform a variety of environmental and industrial services at customer locations;
- Investing in CNG pickups and box trucks to support on-site and over-the-road applications;
- Rolling out longer range CNG tractors for equipment and waste transportation;
- Installing computerized auto-idler systems and GPS-based vehicle performance systems to track and manage engine and vehicle efficiencies; and
- Investing in additional human and technical resources to build best-of-class transportation logistics.

# OPERATIONS

Clean Harbors instills sustainability within its operations through continuous improvements and well-defined strategic initiatives. We selectively pursue opportunities that show the highest positive impact on the environment, the communities and the economy in which we work and live.



### Asset Refurbishment Program

Our fleet of more than 17,000 transportation vehicles represents one of our largest opportunities to apply sustainable business practices. With a set of constantly aging assets, we try to help the fleet run more efficiently and extend its useful life to avoid the impact from the manufacturing of a new vehicle.

Our Asset Refurbishment Program is a comprehensive effort to rebuild assets to “like new” quality. With four facilities now operational, we are able to rebuild approximately two vehicles every week. Our goal is 100% reuse or recycling of all materials. The process includes:

- Removing still-useful components and reusing them
- Rebuilding used components to “like new” quality and reusing them
- Capturing and recycling oil, coolant, oil filters and wash water

The Asset Refurbishment Program provides benefits across all three aspects of sustainability:

- **Environmental:** Reduced impact
  - Significant waste volume is avoided by reusing or recycling 80% of the vehicle, as we do currently
  - Leaks, breakdowns and the resulting route inefficiencies are eliminated
  - Fuel efficiency is improved to be compatible with a new vehicle
- **Social:** Greater safety for employees and communities
  - Vehicles are fitted with the latest safety equipment
  - Vehicles are made safer by replacing electrical and other worn components with new, state-of-the-art equipment
- **Economic:** Sustainable development
  - Incremental jobs are generated at the refurbishing sites
  - Vehicle lifespan can be extended indefinitely
  - The process is scalable and repeatable across most of the fleet



**Hazardous Waste Incineration**

Hazardous waste material – such as industrial and laboratory chemicals, manufacturing byproducts, medical waste, fertilizers and other solid and liquid materials that would otherwise be hazardous to the environment and public health – is not easily disposed of. After extensive review, the EPA has determined that destruction in high-temperature incinerators is the Best Demonstrated Available Technology (BDAT) for safely and effectively destroying hazardous waste compounds.

To provide the most efficient and safe alternative available, Clean Harbors developed and built the most technologically advanced hazardous waste incinerator in the world. Part of the Clean Harbors El Dorado facility in Arkansas, this incinerator uses world-class air emissions control technology that meets the most stringent emissions standards under the U.S. Clean Air Act.

Recognized as one of the safest job sites in the industry, this cutting-edge facility will protect the environment for decades to come. Clean Harbors El Dorado has been re-certified for four consecutive years as a Voluntary Protection Program (VPP) Star Site by OSHA. In February 2017, the facility surpassed 1 million hours without a lost-time workplace injury – an outstanding safety performance that continues as of the publication of this document.

**PERFORMANCE METRICS:**

**MORE THAN 20%  
REDUCTION IN ENERGY USAGE**



**REDUCTION IN  
POLLUTANTS**

- 94% of mercury
- 96% of lead and cadmium
- 89% of particulate matter
- 73% of hydrochloric acid and chlorine
- 45% of dioxin/furan

Performance metrics are from 2016/2017 rollout period.

**Corporate Policy**

Clean Harbors is committed to the reduction or elimination of hazardous waste generated to the extent that is physically and economically practical. Our goal is to utilize source reduction, recycling and reclamation technologies and appropriate hazardous waste management practices to reduce any potential risks to human health and the environment.

To accomplish this goal, we continually undertake efforts to reduce the volume of waste and hazardous waste generated, and reduce the hazardous nature (i.e., toxicity) of the waste generated where economically and technically practicable.

### **Waste-Processing Initiatives**

Clean Harbors has many waste processes that incorporate the reuse of incoming waste streams, recycled products or manufacturing byproducts to offset the need for new materials. Utilization examples include:

- Residual paper in the solidification process of wastewater sludge
- Waste caustics and waste acids from various manufacturing operations as a substitute in wastewater neutralization processes
- Regenerated spent carbon in air stripping and wastewater treatment processes
- Byproducts from mining activities, such as ferrous-sulfate dust, as stabilization media for Company landfills
- Cement kiln dust, fly-ash and waste Portland cement as substitute stabilization media
- Flammable and combustible waste to fire incinerators

### **Paperless Billing**

To reduce paper waste and related environmental impacts such as printer ink, we have worked in recent years to increase the number of customers using paperless billing. We now email or otherwise electronically deliver more than 800,000 invoices per year, preserving upwards of 1.8 million sheets of paper annually. When we gain a new customer, we suggest the option to receive paperless billing. Our billing team encourages customers to “go paperless.”



# SUPPLY CHAIN

As part of our commitment to sustainability, Clean Harbors has initiated a Supply Chain Sustainable Development Program. The program is being rolled out in a phased approach to ensure short- and long-term success.



**Phase I:** Initially, the program requires suppliers to pledge that they will adhere to fundamental sustainability requirements, including those for:

- Labor
- Ethics
- Environment
- Health and Safety
- Products and Services
- Continuous Improvement

Supplier participation initially covers approximately 60% of the Company's current purchasing volume. All new supplier agreements include this sustainability pledge as part of the contract process, which is expected to bring total participation to our goal of 90% over time. The remaining 10% represents incidental and one-time purchases for which a sustainability vetting process is not justified.

**Phase II:** As we better understand the resources needed to support a more robust program for sustainable purchasing, we will initiate Phase II. We will survey specific suppliers to confirm that they have the right processes and programs in place to demonstrate their commitment to doing good business.

These surveys will enable the Company to build a database of information on many aspects of our suppliers' business. Clean Harbors will then use that database to confirm which suppliers meet our requirements and which need to improve to maintain our business.

**Phase III:** We will initiate an ongoing monitoring program to ensure we are aware of any significant changes affecting our vendors. This review will keep us up-to-speed on any publicly available information, including:

- Awards or acknowledgments
- Product recalls or new information
- Environmental or safety violations
- M/SDS changes (Material/Safety Data Sheets)
- Legal or illegal activity
- Labor disputes or human rights issues
- Supply interruptions



# ENGAGEMENT

Clean Harbors believes that by staying engaged with our customers, communities and other stakeholders, we can contribute to the long-term health of the environment, society and the economy. We maximize engagement efforts by selectively contributing to communications, events and causes that best align with our industry relations.



## Platforms and Partnerships

We utilize formal reporting platforms to inform customers and other stakeholders of our sustainability efforts. This includes using industry-leading reporting tools such as EcoVadis, Ecodesk and CDP.



We develop partnerships with key environmental programs to build awareness, while fostering more sustainable business practices. We are an original member of NASCAR Green, the largest single-sport environmental program in the world. We support PaintCare, the national paint stewardship program in states and in other jurisdictions that pass paint stewardship laws. We also work with the Green Sports Alliance to leverage the cultural and market influence of sports to promote healthy, sustainable communities where we live and play.



We participate in thousands of household hazardous waste and pesticide collection programs to safely remove poisons from neighborhoods across North America. Municipalities trust us to collect paints, solvents, batteries, fluorescent lamps, pesticides, cleaners and other hazardous materials during one-day, multi-day and mobile programs.

## Community Involvement

While Clean Harbors provides Emergency Response (ER) as an ongoing service to our customers, ER requests often lead to deeper community involvement by our employees and the organization as a whole.

We provide humanitarian relief for our employees and partners, as well as their families and communities. From battling wildfires to assisting in recovery from tornadoes and hurricanes, we activate our resources to help communities during their most challenging times. We have provided the following relief activities in recent years:

- Lodging in our facilities for employees, their families and friends
- Food and water for families and pets
- Roadside assistance, including transportation and fuel, for people stranded on the highway
- Donations from employees, which were matched by the Company and distributed based on need
- Mobile treatment centers and medical professionals to provide ongoing healthcare for our employees
- Accommodations for emergency response workers not employed by Clean Harbors
- Salary continuation for employees unable to report to work due to natural disasters
- Basic necessities for those who required assistance
- 24-hour crisis hotline for employees

NEW, STATE-OF-THE-ART INCINERATOR **REDUCES ENERGY USAGE BY 20%**  
and **SOME POLLUTANTS BY AS MUCH AS 96%**



**100** TRANSPORTATION  
VEHICLES REFURBISHED  
ANNUALLY,  
with 80% of all materials recycled or reused



**250,000**  
**customers**  
serviced across North America



**1.8 million**  
sheets of paper  
**AVOIDED ANNUALLY**  
through paperless billing



MORE THAN  
**20 million**  
gallons of used  
oil collected and  
recycled annually

**45 million**

pounds of paint reclaimed and recycled in  
2017 in support of the PaintCare Program



# 7.9 million

**METRIC TONS** of carbon dioxide emissions  
avoided by destroying CFCs since 2013;  
Equivalent to removing more than 1,668,000  
passenger vehicles from the road for one year



# 12,000

employees eligible to participate  
in Wellness Program

# 175 million

gallons of used oil re-refined  
and returned to the marketplace  
as clean, pure motor oil and  
associated products

# 350

facilities participate in formal  
Energy Conservation Program

# 6

**Hazardous waste  
management facilities**

admitted into the VPP Star Program, and  
6 additional sites in various stages of the  
VPP process

# 20-WEEK

safety onboarding process for all new employees

# 5,878

**Emergency Response services  
provided to communities in 2017**



**Corporate Headquarters**

42 Longwater Drive

P.O. Box 9149

Norwell, MA 02061-9149

781.792.5000

800.282.0058

[sustainability@cleanharbors.com](mailto:sustainability@cleanharbors.com)

