



**AMERICAN
LITHO**

**Environmental Stewardship for
Sustainable Printing Solutions**
November 2023



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Introduction

The care and preservation of our planet and the life that it supports is dependent upon all of our efforts to protect and sustain it. There is no greater priority. American Litho is committed to conducting business responsibly in order to protect the quality and diversity of life in all its forms, so that our environment is protected today and sustained for future generations.

Economic vibrancy and a sustainable environment are not mutually exclusive goals, rather they are inextricably linked. Consistent with the “Cradle to Cradle” business philosophy promoted by William McDonough, we recognize that supporting and enhancing the environment and the ecosystem upon which all life depends is not only socially responsible, it is essential to good and responsible business practice.

American Litho has established and implemented responsible business practices that promote and foster the sustainability of our environment and our business. Our customers, employees, and neighbors alike can be confident and can remain assured that our priorities remain aligned with theirs.

The sustainable initiatives our business family has undertaken are both substantive and measurable. We will continue to seek ways to achieve the goals of our customers for high quality products in a manner that minimizes the impact on the world in which we live. Through the efficient and thoughtful use of our natural resources, American Litho believes that we can satisfy today’s needs while ensuring the protection of our planet for future generations.



SUSTAINABLE
FORESTRY
INITIATIVE



Sustainable Forestry

The single largest component in the printed product is the paper substrate, a renewable resource. At American Litho, we use only sustainably sourced high quality paper stock containing maximum recycled content. And we recycle all of our scrap paper so that it can be responsibly repurposed.

American Litho is certified by the Forest Stewardship Council (FSC), the Sustainable Forestry Initiative (SFI), and the Programme for the Endorsement of Forest Certification (PEFC), all of whom promote the responsible management of the world's forests. By maintaining these certifications and sourcing our paper stock from such certified sources, American Litho works to ensure the sustainability of our forests and their ecosystems.

The Forest Stewardship Council (FSC) is an independent, non-governmental, not for profit organization established in 1993 to promote the responsible management of the world's forests. The mission of FSC is to promote environmentally sound, socially beneficial and economically prosperous management of the world's forests. Responsible forest management conserves biological diversity, water resources, and soils. In addition, it maintains the unique and fragile ecosystems of the forests, as well as their integrity and ecological functions. We purchase our paper stock from FSC certified paper mills.

Sustainable Forestry Initiative (FSI) standards ensure that the paper stock is sourced only from forests that practice land stewardship and that promote a sustainable ecosystem to ensure the conservation of soil, protection of air and water quality, sequestration of carbon, biological diversity, and protection of wildlife and aquatic habitats. American Litho is certified to the Sustainable Forestry Initiative standards.

The Programme for the Endorsement of Forest Certification (PEFC) is the world's largest forest certification system, and the certification system of choice for small-forest owners. The PEFC enables forest owners and managers to demonstrate that the practices applied in the forest are sustainable, and that their forests meet the needs of today and those of future generations. PEFC also acts as an enabler of sustainability, empowering companies to choose sustainably-sourced products, and creating incentives for uncertified forest owners to obtain certification. American Litho is certified by the PEFC.



Sustainable Printing Practices

American Litho utilizes energy efficient, sustainable, and low emitting printing technologies and materials to produce high quality printed products that consistently meet or exceed the expectations of our customers.

At American Litho we use:

- Environmentally friendly vegetable-based heatset lithographic inks containing soybean oil. These soy-based inks produce bright high quality images and upon registration would allow our heatset lithographic products to display the Printed with Soy Ink® Soy Ink Seal licensed by the American Soybean Association.
- Environmentally friendly water-based ink jet web printing that utilizes electric infra-red dryers, which eliminates the need for natural gas.
- On-demand digital printing that eliminates the need for natural gas since it does not require heated dryers, and does not require make-ready between jobs, thereby eliminating the use of make-ready chemicals.
- UV printing in which oligomers cross link to form polymers on the printed substrate, producing no emissions and eliminating the need for dryers and their associated natural gas usage.
- Non-heatset lithographic web and sheetfed printing presses which do not utilize natural gas heated dryers.
- A high speed heatset web Sunday press having an integrated oxidation control system that utilizes the ink solvent for a portion of the heat input to the dryers and emission control system, thereby minimizing the use of natural gas.
- Heatset web lithographic presses that employ a centralized regenerative thermal oxidizer with a state-of-the-art heat exchanger that maximizes heat exchange effectiveness and heat recovery and minimizes the use of natural gas.



CO₂ NEUTRAL

Responsible Energy Utilization

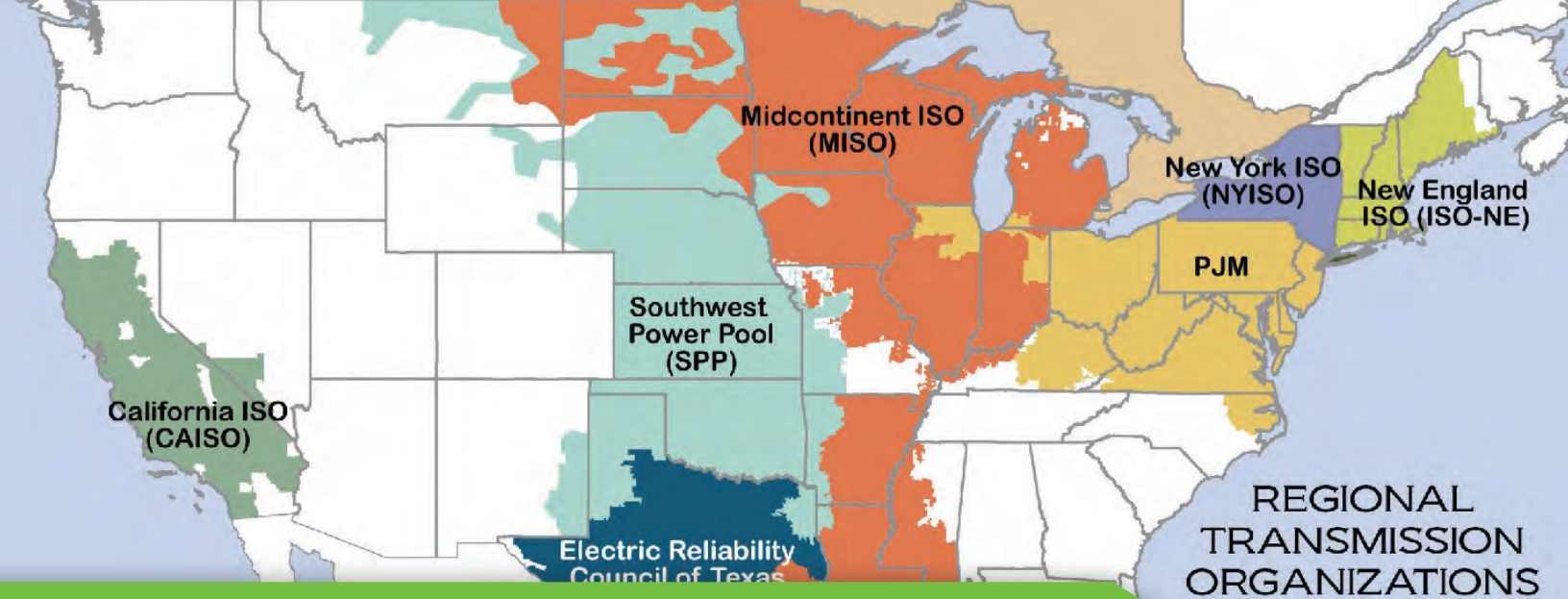
American Litho is committed to minimizing the energy utilization and carbon footprint of our manufacturing operations, and in the future achieving carbon neutrality. Energy utilization and the associated carbon emissions are tracked with the goal of minimizing the direct and indirect emissions of Greenhouse Gases (GHGs) resulting from our production operations.

As described under our Sustainable Printing Practices, American Litho has invested in and employs low energy and low emitting printing technologies that minimize the carbon footprint of our products while maintaining the high quality printed product that our customers expect. The use of on-demand digital printing, water-based inks, and UV printing reduces the energy utilization and the associated carbon footprint of our printing processes.

Scope 1 Direct carbon emissions from the use of natural gas in our manufacturing operations have been substantially reduced as a result of the use of printing technologies that do not require drying, the environmentally friendly printing inks and chemistries that are used, and the high efficiency air purification systems which maximize heat recovery and minimize energy utilization.

Scope 2 Indirect carbon emissions from the generation of our purchased electricity have also been substantially reduced through the installation of energy efficient lighting systems and motion detectors, temperature controls in our manufacturing facility, and the use of high efficiency compressed air systems. Low energy fluorescent lighting has been replaced by even lower energy LED lighting systems throughout our facility. Motion detectors have been installed to ensure that lighting is turned off in areas where there is no activity or need for illumination. Temperature control systems are utilized to minimize refrigeration requirements. Centralized low energy air compressor systems have been installed to improve reliability and reduce energy consumption. In fact, as of June 2021 over 15,500,000 kWh of purchased electricity have been saved as a result of the centralized low energy air compressor systems, and this trend is expected to continue.

Scope 2 Indirect carbon emissions have been further reduced by sourcing our purchased electricity



Responsible Energy Utilization Cont.

from power generation sources whose Generation Fuel Mix continues to progress toward the use of fuels that reduce carbon emissions from the power generation plants. American Litho purchases electricity from the Direct Energy PJM Power Generation Region, where the proportion of coal in the Generation Fuel Mix has been reduced from 30% in 2018 to 20% in 2022, while the proportion of electricity generated by non-fossil fueled generation sources has increased to over 40%. This has resulted in a greater than 12% reduction in the Green House Gas (GHG) emissions per kWh of electricity generated for the electricity purchased by American Litho.

Scope 1 Direct and Scope 2 Indirect Greenhouse Gas (GHG) emissions for 2018 – 2022 are as follows:

Description	2018	2019	2020	2021	2022
Natural Gas Usage (1000 Dth)	65.7	64.9	63.4	67.0	68.6
Scope 1 Direct GHG (Metric tons CO ₂ e)	3,510	3,465	3,385	3,580	3,667
Purchased Electricity (MWh)	25,365	24,970	23,000	25,549	25,535
Scope 2 Indirect GHG (Metric tons CO ₂ e)	10,634	9,641	8,254	9,773	9,392



Protection of Air Resources

American Litho utilizes a variety of state-of-the-art printing technologies to produce high quality products in a manner that responsibly uses and protects air resources. Even though our printing capacity continues to grow, our Carol Stream, Illinois manufacturing facility remains classified as a non-major (synthetic minor) source of air emissions, reflecting the fact that we continue to effectively minimize air emissions to the greatest degree possible.

This has been achieved through the use of low emitting printing technologies, the application of efficient air emission cleaning systems, and the implementation of effective pollution prevention practices. For example, the use of natural gas heated dryers has been eliminated for our water based ink jet web presses, our non-heatset lithographic printing presses, and our UV and on-demand digital printing operations. These technologies are energy efficient, have a small carbon footprint, and produce minimal waste.

The use of natural gas has been further reduced through the use of an integrated dryer-oxidizer in one of our largest heatset web offset lithographic Sunday presses. The heat from the oxidation air cleaning section of this integrated unit also heats the dryer, thereby reducing natural gas usage. Also, the use of a centralized regenerative thermal oxidizer (RTO) air emission control system efficiently treats the air emissions from all of the other heatset web offset lithographic presses, and in turn minimizes the use of natural gas. The RTO utilizes a 95% effectiveness ceramic saddle media heat exchanger which substantially reduces the need for natural gas supplemental fuel, and in many cases enables the control system to operate predominantly on the heat value derived from the ink solvents alone that are treated.

The printing materials used at American Litho include heatset lithographic inks containing soybean oil, water based ink jet inks, UV inks containing no VOCs, and cleaning solutions that have been formulated to reduce their VOC contents, hazardous ingredients, and VOC emissions. Our suppliers have been required to formulate our cleaning solutions so that they have very low VOC vapor pressures (less than 10 mmHg @20°C) in order to minimize evaporative losses when used to clean the printing equipment.



Protection of Water Resources

Along with the air we breathe, our water resources are the most valuable of our planet's resources. Clean water is the foundation for a healthy and prosperous community. While our nation has made significant progress, our drinking water sources remain fragile and under threat by pollution and overconsumption. American Litho is deeply committed to reduce and protect the use of this valuable resource that is vital for all life on our planet.

Through the use of environmentally friendly chemistries, and by reducing or eliminating the need for make-readies in some of our printing operations such as the HP Indigo Digital Printing process, we have minimized and in many cases eliminated the impact of water use and wastewater discharges associated with the printing process.

The lithographic printing operations at American Litho inherently minimize water usage through the use of state-of-the-art recirculation systems. Press ready fountain solution reservoirs recirculate and reuse the aqueous fountain solution mixture, thereby reducing water make-up, consumption, and wastewater discharges.

Our CY 2022 annual water consumption at our facility was 61.4% below what the US Energy Information Administration (EIA) projects would have been utilized by just our facility's personnel alone. In addition, our CY 2022 water usage was 7% below the prior 5-year average consumption, and this trend in the reduction of water usage is expected to continue.



Reducing Industrial & Hazardous Wastes

American Litho minimizes the use of materials that would be considered hazardous. As a result, our printing facility is classified by the Environmental Protection Agency (EPA) as a Small Quantity Generator (SQG) of hazardous waste. The amounts of hazardous wastes that are generated are very low, and they are repurposed by an off-site waste management facility into supplemental fuels, replacing fossil fuels that would otherwise be used.

Used oils from our facility are collected for off-site recycling, and wash waters containing oils are concentrated in an on-site oil/water separator before being shipped off-site for beneficial processing. The used oils along with the concentrated wash waters and waste inks are sent to a recycling operation where they are repurposed as synthetic oils and asphalt pavement additives.

Pressroom equipment cleaning is accomplished using reusable cloth towels rather than disposable wipes. Soiled cloth towels are collected and shipped off-site for laundering. The laundered towels are returned for reuse, and not disposed of as a waste. This substantially reduces the amount of solid wastes generated from the pressroom.

The total amount of solid waste generated by our plant and disposed of to a secure landfill continues to decrease. Our Solid waste generation rates were reduced by more than 2 tons in 2022 relative to 2021, and this trend is expected to continue.



Paper Recycling & Repurposing of By-Products

As described under our Sustainable Printing Practices, the single largest component in the printed product is the paper substrate, a renewable and reusable resource. While we use only sustainably sourced high quality paper stock with maximized recycled content, we also recycle 100% of our scrap paper by-product so that it can be responsibly repurposed.

The scrap paper by-product from our manufacturing operations is collected using a high efficiency pneumatic conveyance system, and gathered into bales. The bales of paper are transported to paper mills in Wisconsin where they are recycled into post-consumer products such as paper plates, paper towels, and toilet paper by companies such as Georgia Pacific and Kimberly Clark.

The offset lithographic inks used at American Litho are supplied predominantly by Huber Group. Huber Group is a worldwide leader in sustainability, and has achieved Cradle to Cradle Material Health Gold certifications for their commercial offset printing inks. Huber Group's UV inks for both sheetfed and web offset printing have received de-inking certifications, which enhances the recyclability of both our products and by-products.



Preserving Green Space & Establishing Carbon Credits

Consistent with their commitment to the environment and their community, the owners of American Litho, Mike Fontana and Chris Joyaux, purchased a 22-acre hobby farm and wooded property in West Chicago, Illinois in 2019. The property had recently been put up for sale following the death of its 98-year old owner. They reasoned that this oasis in the midst of urban sprawl just west of Chicago would be destined to become another housing development, losing a long established greenspace and wildlife habitat. By preserving this land in the heart of DuPage County, a rare and vital wildlife habitat continues to be protected and will thrive for future generations.

Under the leadership of the owners of American Litho and to the delight of the community, the hobby farm, petting zoo, farm fresh store, and seasonal festivals are continuing, and community traditions are being preserved. A concise analysis of the wooded portion of the property has been conducted to determine the amount of carbon that is being stored and preserved as a result of these trees being protected. It has been estimated that there are approximately 1,000 trees which remove 24 tons of carbon dioxide from the atmosphere annually. By preserving the woodlands on the property, this carbon sink will be retained, and even greater amounts of carbon dioxide will be soaked up like a sponge in the years ahead.

Carbon dioxide is the most significant greenhouse gas in the planet's atmosphere. Atmospheric carbon dioxide is sequestered by plants, grasses, and trees through photosynthesis, and the resulting carbon is stored in the biomass, including the trunks, branches, foliage, and roots. Of all the land uses in the United States, forests sequester the vast majority of carbon from the atmosphere. Using recognized forest carbon accounting practices in conjunction with periodic tree inventories, annual determinations can be made of the amount of carbon stored, and the amount of carbon that is continuing to be sequestered by these trees.

By maintaining this wooded property for the benefit of the community and the environment, and preventing the trees from being removed for the construction of a housing development, a critical habitat is being preserved and measurable carbon credits can be established each year. Through the ongoing efforts to reduce greenhouse gas (GHG) emissions from our manufacturing operations, in conjunction with the ability to generate carbon credits from the surveyed woodlands, it is our plan that the manufacturing operations at American Litho will continue to minimize their carbon footprint and strive to achieve carbon neutrality.



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