

FACILITIES FOOTPRINTING: THE CHEMICAL FOOTPRINT PROJECT

A CASE STUDY ON THE IMPACT OF THE CLEAN PRODUCTION LEADERS PROGRAM ON THE CHEMICAL FOOTPRINT PROJECT

SUMMARY

In 2021, Clean Production Action's (CPA) Chemical Footprint Project (CFP) teamed up with the WNY Sustainable Business Roundtable (SBR) and New York State Pollution Prevention Institute (NY P2I) to assess the chemicals management programs and calculate the chemical footprints of three SBR members: Catholic Health, Tapecon, and Niagara Malt. SBR's Clean Production Leaders program, through which this partnership and survey took place, was funded by an EPA Source Reduction grant. The CFP Survey is a leadership framework for chemicals management, including the calculation and reduction of an organization's chemical footprint, which measures the amount of chemicals of high concern in a defined scope. While the CFP Survey addresses products, packaging, manufacturing, facilities, and supply chains, in its first five years it focused on products manufactured or sold by an organization. For companies that do not manufacture or sell products, but rather provide services and operate facilities, chemical footprinting of such operations had not yet been included in the CFP Survey. Therefore, when CFP, SBR, and NYS P2I partnered to assess chemical footprints, survey methods were adapted to focus on chemicals used in the maintenance of facilities. The project successfully applied the chemical footprint metric to facility chemicals, providing a useful measure for pollution prevention. This successful adaptation demonstrated that the best management practices and the chemical footprint calculation included in the CFP Survey can be used for facilities, increasing the types of organizations that can use the CFP Survey to reduce their use of toxic chemicals.

ORGANIZATION

A solutions-based approach to safer chemicals.

Clean Production Action (CPA) is a non-profit organization based in Somerville, Massachusetts, that designs and delivers strategic solutions for green chemicals, sustainable materials and environmentally preferable products.



OBJECTIVE

Survey and assess the chemical footprint of a company's packaging and production.

The Chemical Footprint Project (CFP) Survey addresses four pillars of best practices, policies, and procedures in chemicals management: management strategy, chemical inventories, footprint measurement, and disclosure and verification. The objective of this partnership between the WNY SBR and CPA was to assess the chemical footprints of Catholic Health, Tapecon, and Niagara Malt – all of which are SBR members. Through the Clean Production Leaders program at SBR, and in partnership with CPA and NYSP21, a chemical footprint analysis was conducted for each of these organizations.

CPA partnered with the WNY SBR in this program. The WNY Sustainable Business Roundtable is a “business-driven” organization focused on creating an environmentally and economically resilient Buffalo-Niagara through business innovation, knowledge, and co-operation.



CHALLENGES

Assessing the footprint of an organization's facility, as opposed to its products.

In 2021, beyond its regular survey questions on products, CPA ran pilots to assess the viability of chemical footprinting for both packaging and manufacturing process chemicals. However, none of these three areas proved practical or applicable to the SBR organizations participating in this project. In one case, the organization's clients controlled manufacturing inputs, limiting its ability to identify, much less assess or reduce the hazard of its chemical inventory. Another organization is a service provider that does not manufacture or sell products. In response, NYSP21, working with the SBR members, adapted the concepts of chemical footprinting to the chemicals used to maintain each organization's facility. These chemicals posed potential risk to workers, patients, and, in the event of an accidental release, the surrounding environment. Importantly, information on the identity and volume of chemicals was at least partially available through chemical safety datasheets (SDS). Challenges typical of SDSs remained. Chemicals were often reported as being present in large ranges, e.g., 5 - 85% of a product. SDSs are not required to include all chemicals present in a product and are known to be inaccurate. However, they provided enough information that the SBR members were able to calculate baseline chemical footprints, then take steps to reduce them.

Information on Clean Production Action and the Chemical Footprint Project:

<https://www.cleanproduction.org/>
<https://www.chemicalfootprint.org/learn/about-cfp>

For more information on the Chemical Footprint Project, please contact:

moreinfo@chemicalfootprint.org

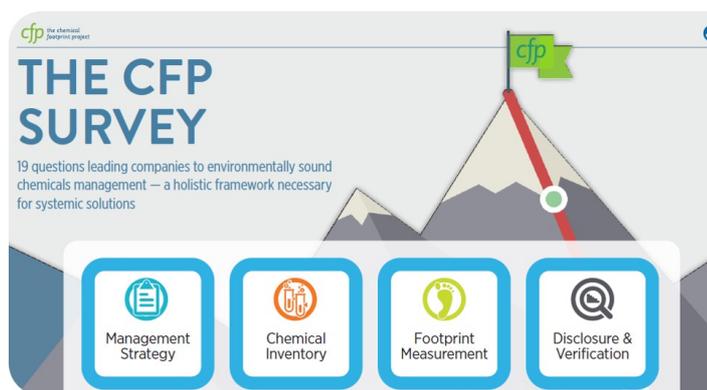
For more information on the Western New York Sustainable Business Roundtable, please contact:

info@wnysustainablebusiness.org

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This project demonstrates that calculating a chemical footprint of a facility is not only possible, but practical and can be done by a wide variety of organizations. Chemical footprint reduction benefits not only businesses, but also workers and the wider community.”



SOLUTIONS & CONCLUSIONS

A new entry-point for an organization's chemical footprints.

Through this project, chemical footprinting has proven to be a useful tool for hazard reduction, even for organizations where access to the identity of chemicals used in products or manufacturing is challenging or for organizations that do not manufacture or sell products at all. Nearly all organizations operate facilities and have control over, and access to, information on the content of products used to maintain those facilities. By calculating their facility chemical footprint, organizations can prioritize areas for hazard reduction and measure progress toward the use of safer chemicals, which reduces risk to their workers, others using their facilities including clients or patients, and the surrounding environment.

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