

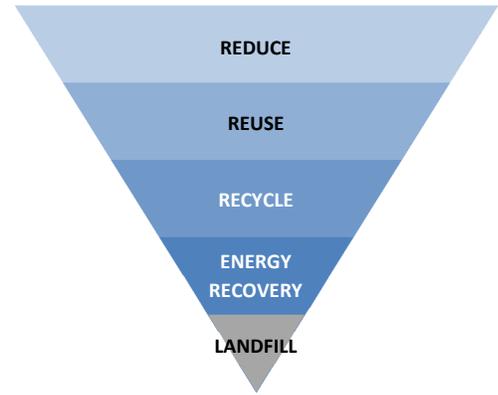


# Zero Waste to Landfill Verification

## Is it worth it?

### What is Zero Waste to Landfill?

At its core, zero waste to landfill is exactly what it sounds like: diverting all wastes from landfill disposal. Businesses are getting there by moving up the waste hierarchy: reducing materials consumption & waste; reusing materials; recycling, composting, and using anaerobic digestion; and then, for what's leftover, recovering energy. In sum, it's all about reducing waste and beneficially reusing the waste we do generate.



### Who can do it?

Nearly any business or facility can achieve zero waste to landfill. Although the amount of effort and steps needed can vary significantly, a quick look at public information shows a diverse group of companies, including Nestle, Boeing, Kraft, Subaru, Bridgestone, and Unilever having achieved, or committed to, zero waste to landfill.

### Why pursue zero waste to landfill?

Diverting waste from landfills saves costs and reduces environmental impacts. It can also give you a way to highlight the environmental achievements of your company, business, or facility. Diverting waste from landfills can help meet your greenhouse gas reduction, energy efficiency, or other environmental goals; satisfy your supply chain requirements; and establish your operation as a leader amongst its peers.

### Is there a standard definition?

Although the general concept is intuitive, there is currently no universally accepted definition of what zero waste to landfill means in practice. Currently, three organizations have developed their own standards: Green Circle Certified, Underwriters Laboratory (UL), and NSF International. Each offers a third party verification service against their own internal standard.

### How are they different?

For one, they use different names. The NSF International standard solely uses the term “Landfill-Free.” UL uses the term “Zero Waste to Landfill.” Green Circle references both terms. In addition, all three organizations will verify your percent diversion if you haven't achieved zero waste to landfill, regardless of the number. The standards also differ with the treatment of Energy from Waste (EfW). UL imposes a 10% limit, unless there are significant net carbon, energy and environmental benefits for EfW over diversion options. Green Circle has no limitation for non-recyclable and not-economically-recoverable waste. NSF allows for up to 50% EfW, but facilities are required to have a 5-year plan to reduce EfW rates.

### What is third party verification?

Third party verification is an independent audit that assesses the validity of your zero waste to landfill claim. The process looks both at where your waste has gone in the past and the management processes you have in place. This second point is important: the verifier wants to make sure that you will sustain your past performance in diverting waste from landfills. At the successful completion of the audit, you will receive a certificate and permission to use the verifier's logo and name.

### What are the benefits of third party verification?

Generally the most commonly cited benefit is additional credibility. From the Federal Trade Commission to environmental non-governmental organizations (NGOs) to sustainability reporting and rating organizations, there is increasing interest in making sure public claims are accurate and verifiable. Obtaining a third party verification gives you added credibility and assurance in the marketplace that your claims are sound. An important benefit that many overlook is the insight that a third party can bring to your process. A third party review can help you identify risks or opportunities for improvement that you might not otherwise discover.

### What should I expect when going through an audit?

You should expect a site visit, potential visits of your downstream waste outlets, and an intensive review of records, procedures, and other documentation. During the process, your auditor will likely focus on:

<b>Procedures</b>	<ul style="list-style-type: none"><li>• What procedures are in place to ensure proper waste management?</li></ul>
<b>Records</b>	<ul style="list-style-type: none"><li>• Can you demonstrate where the waste went? (invoices, bills of lading, weigh tickets, etc.)</li><li>• How was the waste managed at its destination?</li></ul>
<b>Communication / Training</b>	<ul style="list-style-type: none"><li>• Do your employees know how waste needs to be managed?</li><li>• What communication tools are in place?</li></ul>
<b>Documentation</b>	<ul style="list-style-type: none"><li>• Can you document that EfW was the appropriate mechanism for managing waste remaining after recycling?</li></ul>
<b>Site Visits</b>	<ul style="list-style-type: none"><li>• What waste streams are being generated? How are they managed in practice?</li><li>• Are downstream suppliers managing the waste as stated?</li></ul>

After their review, your auditor may develop a list of corrective actions that you'll need to address before they can verify your claim. They likely won't be able to help you too much in finding a solution: auditors generally maintain a strict policy against providing consulting services. As a consequence, having good waste management partners with strong tracking systems and support teams in place is instrumental in completing the audit successfully and addressing any corrective actions identified.

## How do I choose a verifier?

Remember that you are choosing both a verifier and a standard when you make your decision. So, you'll need to evaluate your options from both sides:

1. Each standard is a little different in the details, so doing your due diligence on the front end will help you avoid surprises when you are going through the process.
2. Look at the reputation and experience of the verifier: Have they worked in your industry? What kind of partnerships have they formed that might raise concerns over their impartiality?
3. If you can, get to know the team that will be working on your project. You'll be interacting with them closely once you sign the contract.

## Where is this trend going?

Businesses will continue to focus on more sustainable materials management and landfill diversion to save costs and reduce environmental impacts. Concurrently, they will also continue to communicate their goals and successes. As this becomes more prevalent, we expect that the demand for verification will also grow.

With regard to the standards process, we'll likely see a more unified standard coming out of ANSI and ASTM; however, these standards are still a ways out. In the meantime, the three independent standards will remain.

## About the Author

Michael Van Brunt is a licensed professional engineer with over 15 years of experience in industry and consulting, including waste management, forest products, steel manufacturing, scrap recycling, site investigation & remediation, and aluminum manufacturing. Michael is currently Director of Sustainability at Covanta where his primary focus is on sustainability reporting, climate change, carbon offset project development, and life cycle assessment. He is currently on the UL Standards Technical Panel addressing zero landfill and waste issues and was recently elected to the National Recycling Coalition Board. He earned both a B.S. and a Masters in Environmental Engineering from Cornell University.

Contact us at 800.950.8749 or [info@covanta.com](mailto:info@covanta.com) for more information.