

No Waste of Energy



RoughDeck® axle scales optimize the trailer loading process at a high-tech transfer station.

The challenging environment of solid waste transfer stations is often home to Rice Lake's heavy capacity solutions. SURVIVOR® truck scales, RailBoss® rail scales and RoughDeck floor scales have been no stranger to these surroundings, where steady usage and corroding chemicals can quickly deteriorate lesser-quality equipment. However there is another warrior in Rice Lake's arsenal of transfer station worthy weighing equipment—RoughDeck AX Series axle scales. Xcel Energy in La Crosse, Wisconsin utilizes the axle scale's accuracy and dependability to optimize landfill trailer loads.

At the facility, waste arrives on incoming dump trucks and is transferred to larger containers that are shipped via semi-truck. The station is part of a larger operation: A power plant that uses waste-to-energy solutions to generate electricity. This not only reduces waste, it also creates energy using environmentally friendly methods.



The transfer station handles residential and commercial waste from southwestern Wisconsin and is never at a loss of material.

While outgoing trucks are conveniently weighed on a truck scale, not all waste is suitable for shipment or recyclable into energy. Some items, such as bed mattresses, are too large and must be delivered to the local landfill. For this subset material, a different weighing solution was needed. An additional truck scale would not easily fit at the location and it would not be economical for the one trailer load per week.

Xcel Energy wanted to monitor the increasing weight of a trailer and, as it approached the gross weight limit for roads in Wisconsin, stop loading activity and transport to the landfill. They needed a scale with the same durability of Rice Lake's legendary SURVIVOR truck scales, but in a compact design.

La Crosse Scale, LLC installed RoughDeck AX tandem axle scales as the solution, which provided the perfect combination of strength and size. Designed specifically for heavy-duty environments, the axle scales feature environmentally sealed, IP67 load cells to help survive the harsh transfer station environment. RoughDeck AX axle scales utilize a robust design to ensure long-lasting durability.

While individual pieces of waste may seem relatively harmless, the combination of materials with water and other fluids creates an acid-like mixture called leachate. This can wreak havoc on equipment with inadequate construction. Scales with less steel will quickly deteriorate, resulting in inaccurate weighments and, ultimately, complete system failure.

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The operation is monitored in Xcel Energy's nearby control center, where a high-tech interface is presented on multiple computer monitors, and live camera feeds are shown on flat-panel televisions. Here, an operator supervises the status of numerous systems including the shredding line, ferrous and non-ferrous conveyors, the tipping floor, the landfill trailer and more. It is a futuristic display of information that would make even the commander of the starship Enterprise envious.

Data is analyzed and incorporated into reports that summarize daily processes to identify opportunities for greater efficiency. While this is a key factor for any waste transfer business, one element is even more integral to success: Uptime. If equipment goes down, waste can pile up in a hurry. Reliability is perhaps the most desired characteristic in this industry, and it is no wonder why Rice Lake continues to be the manufacturer of choice.

In addition to a superior structural design, RoughDeck AX axle scales also include special features for added protection from harmful elements. The IP67 rated load cells protect against water ingress while submerged up to one meter deep for up to 30 minutes, and the JB4SS NEMA Type 4X junction box surrounds sensitive electronics with a layer of stainless steel armor. Hostile environment load cell cable is also included to complete the package of resiliency.

Xcel Energy uses the latest technology to provide the best service to their customers. The La Crosse transfer station follows suit in this philosophy. By utilizing most dependable and accurate axle scales on the market, uptime is enhanced, safety is assured and there is no waste of energy. ■

