



PLEASANT MATTRESS Builds Sustainability Into Everyday Work

An SP2 Case Study

The Sleep Products Sustainability Program (SP2) is a voluntary program designed to empower mattress manufacturers with the tools, training, and resources to implement sustainable practices throughout their facility. The goal of the program is to enable manufacturers to reduce the negative environmental impacts of their operations and supply chain. This case study highlights an SP2-certified participant, Pleasant Mattress Inc. (PMI), and their successes in improving the sustainability and efficiency of their business.

SETTING UP SP2

Before beginning the SP2 certification process, Pleasant Mattress had already implemented a number of sustainability initiatives, including an environmental policy, energy conservation efforts, and a recycling program. In addition, a number of PMI's preexisting processes, such as their occupational safety program and quality management program, provided opportunities to integrate sustainability into everyday business practices. Throughout the SP2 certification process, PMI made excellent use of these opportunities to make SP2 part of their business, rather than thinking of it as a stand-alone activity.

Over the course of four months, PMI invested 36.25 hours of staff time to collect data, extend processes, implement their SP2 System, and apply for certification. By adding SP2 activities to established processes like monthly safety meetings, safety walkthroughs, weekly quality and safety check-ins, HR training management, supervisor townhall meetings, and department standing meetings, they were able to improve management of sustainability topics with relatively little effort.

For example, PMI uses monthly safety meetings and the meeting minutes spreadsheet to track corrective and preventative actions related to safety. For SP2, sustainability-related corrective and preventative actions were added to the existing meeting agenda and minutes form, integrating them into a common process and eliminating the need for additional meetings or documents.

SP2 METRICS

Recycling

Pleasant Mattress's SP2 System tracks disposal and recycling of their production materials along with material type and cost savings. Through the efforts of employees across the company, PMI has been able to achieve a 77% 3R Rate - reducing, reusing, or recycling most of their waste and sending only 1.25 pounds of waste to landfill for every mattress produced. These efforts also net more than \$100,000 per year in avoided landfill fees plus revenue for recycled materials.

Energy and Carbon

Pleasant Mattress's SP2 System tracks its consumption of electricity, natural gas, and propane which supply energy for production equipment, lighting, comfort heating, and forklifts. Because some energy use is seasonal, they calculate a 12-month rolling average. Since the start of their sustainability efforts, the average energy consumption per unit produced has decreased approximately 30% due to the implementation of a variety of energy-saving practices and equipment upgrades. This results in a similar reduction in carbon emissions and energy expense per unit, saving more than 600 million BTU of total energy use or 76,000 pounds of CO₂ emissions per year (approximately the CO₂ emissions of an average passenger vehicle driven 86,000 miles¹). Based on current energy prices, this represents a savings of over \$40,000 per year.

¹ U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator, Last Updated: March 2021, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

SP2 BEST PRACTICES

In support of their SP2 System, Pleasant Mattress developed several exemplary practices to improve sustainability systematically across their operations. This case study highlights some of the practices that contributed to their certification and success.

Employee Engagement

Employee engagement is key to any sustainability initiative. Understanding this, Pleasant Mattress looked for opportunities to educate employees in ways they were accustomed to receiving other information. Throughout the facility, TV monitors are set up as “virtual posters” showing production information, safety reminders, and announcements. As part of completing the *Employee Awareness and Engagement* SP2 requirement, the team created twelve monthly sustainability slides to educate employees and improve the sorting of recyclable materials across the facility. The slides incorporated photos from the facility to give specific visual guidance to employees (rather than relying on generic images), as shown in the examples below.

AUGUST SLIDE



The rotating selection of twelve slides also creates an opportunity for preventative measures - if mis-sorting of waste is discovered during a program verification walkthrough, the team can update the related slide to help correct the confusion and prevent future recurrence, creating a structure for continuous improvement.

NOVEMBER SLIDE



SUPERVISOR SHUTDOWN CHECKLIST



END-OF-DAY PMI SHUTDOWN CHECKLIST



- ✓ Shutdown all machines, fans, computers, monitors, and other electronic equipment.
- ✓ Listen for air leaks. Identify the location and report to Maintenance.
- ✓ Turn off all lights.
- ✓ Close and secure all entrances.



Another good example of engaging employees to achieve sustainability gains is the supervisor end-of-day shutdown list. As part of energy conservation efforts, supervisors review their work stations at the end of the day to systematically shut down equipment and lights, search for compressed air leaks, and secure the area.

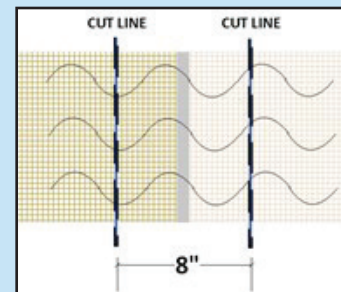
The results of this practice contributed to the 30% energy savings reported above, demonstrating that quick and simple measures, repeated systematically, can have big impacts on production and sustainability.

Quilt Transition Waste Reduction

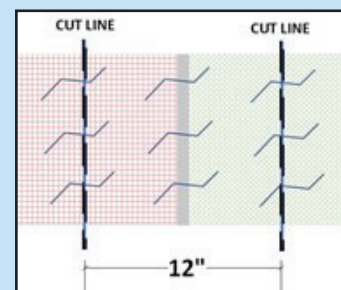
This best practice is a good example of Pleasant Mattress using their quality management expertise to achieve waste reduction. After a review of waste generation, the facility identified quilting transitions as a source of waste which could be reduced through improved planning.

Using their quality management skills, Pleasant Mattress employees began collecting data using a quilting transition log. After each transition, the quilting machine operator recorded details about the transition and the amount of discarded material generated. This log provided the necessary data to analyze the challenge and develop countermeasures.

QUILT TRANSITION IMPROVEMENTS



Whenever a quilting machine transitions from one product to the next, there is necessarily some waste generated (the middle section between two patterns).



If the two quilting patterns do not line up with each other, additional material is wasted to align the cut line with the new pattern (e.g. 12" instead of 8").

Careful planning and attention to detail has already lead to a 15% reduction in quilting waste with plans to lower their scrap even further with process training for all operators and adjustments to machine settings.

TRANSITION PLANNING



By planning quilting transitions carefully, the quilting pattern can be lined up with planned cuts, reducing waste.



The fully assembled quilted transition provides product quality benefits as well as waste reduction.

FOR MORE INFORMATION

The Sleep Products Sustainability Program (SP2) helps mattress manufacturers reduce waste while increasing operational efficiencies. The program was developed as part of the mattress industry's commitment to environmental stewardship and complements the Mattress Recycling Council's larger sustainability efforts. Training, program resources, and certification are all offered at no cost to eligible California-based mattress manufacturers. For more information about the Sleep Products Sustainability Program (SP2), see the [Mattress Recycling Council website](https://www.mattressrecyclingcouncil.org) or send an email to SP2@mattressrecyclingcouncil.org.

Pleasant Mattress is an independent, family-owned and operated mattress manufacturer serving the Western United States. The company has been building traditional mattresses and specialty sleep products in its 150,000-square-foot campus in Fresno, California since 1959 and employs 160 people. The company is a licensee and manufacturer of the Spring Air family of brands and manufacturers the AirFlex and McRoskey brands through its McRoskey Mattress Works division. For more information about Pleasant Mattress, [see their website](https://www.pleasantmattress.com).

