SYSTEM GUIDANCE

SLEEP PRODUCTS SUSTAINABILITY PROGRAM

Published August 2021

CONTENTS

SLEEP PRODUCTS
SUSTAINABILITY PROGRAM

INTRODUCTION

This document is a comprehensive guide that covers the requirements of the Sleep Products Sustainability Program (SP2). It contains descriptions and examples to make each requirement easy to understand and implement. The requirements of the program are:

PLAN

- Environmental Policy
- Facility Impact Assessment
- Goals and Targets
- Measurement of Progress

PEOPLE

- Employee Awareness and Engagement
- Supplier Partnership
- Best Practice Sharing

PROCESS

- Regulatory Compliance
- Program Verification
- Corrective and Preventative Actions
- Program Resilience

There is also a shorter document available called SP2 Certification Requirements that details the minimum requirements of each element. It lists the specific items that a facility must implement to achieve SP2 certification. In contrast, this System Guidance document provides additional ideas and assistance for how to meet or exceed those requirements.

Guidance for each element includes:

- **Requirement:** What is the specific text of the requirement for certification?
- **Description:** What is this requirement and what does it mean?
- **Examples:** What are some examples of how to meet this requirement?
- **How to do it:** How do I implement a process to meet this requirement?
- **Gap Analysis Questions:** How can we confirm whether the requirement is being met?

While these sections provide advice and ideas for implementing, only what is detailed in the SP2 Certification Requirements document is strictly required. Companies should feel free to be creative and go above and beyond the requirements to make their SP2 system a useful addition to their workplace and business, and not just a paper exercise. Make a system that works for you, not one that you have to work for.

Examples are provided in each section to give an idea of different directions different companies could take these requirements when customizing them to their company culture and operations. The SP2 Requirements are intentionally designed to be flexible so that they can be adapted in creative ways to serve a particular facility. The examples should be seen as ideas, not requirements.

Several of the examples refer to Lean Production principles. These principles are focused on building engagement with employees to identify and eliminate waste and achieve continuous improvement in processes. *Kaizen* is the idea that many small improvements by many people, if made permanent, can add up to form big impacts. It is this cycle of continuous improvement that SP2 is modeled after.

SYSTEM GUIDANCE

These sections provide additional guidance on the certification requirements of SP2. They should be considered suggestions, examples, and further detail, but do not form additional requirements for certification.

PLAN

The four requirements of this section lay out how to plan for continuous improvement in sustainability efforts.

1. Environmental Policy

Requirement

The facility must have an environmental policy that is 1) written, 2) formally adopted and signed by the facility management, and 3) communicated to all employees and onsite contractors. The policy must include a commitment to continuous improvement in environmental performance.

Description

The environmental policy forms the guiding compass for SP2 goal setting for to keep the program oriented toward the same "horizon goals" over time. When done well, it provides a clear communication of priorities and tone from management to employees and business partners.

The policy should be communicated in multiple formats, such as printed posters, inclusion in training, daily briefing meetings, progress boards, or whatever works for a given facility to keep the policy prominent to employees and customers. Communication should be sustained (rather than a one-time action) so that new employees or business partners are introduced to the policy and can join the effort when they arrive.

Examples

ABC Mattresses has a company culture based on employee engagement and service-based leadership. They incorporate this into their environmental policy by using key phrases already familiar to employees, indicating that their environmental efforts are just one facet of their overall company culture.

"ABC Mattress will harness the potential of our employees to reduce harm to the environment and make a better world for our customers and communities. Management will encourage our employees to enhance their potential to reduce waste in our processes, as well as energy and water consumption. We commit to applying our creativity to continuous improvement of our environmental performance."

They make an initial announcement of their policy with a large poster signed by management and then invite employees to sign as well and post it near the entrance to the manufacturing floor where employees pass each day. They add a smaller version to the daily progress board to serve as a reminder. To sustain the awareness, they add it to their annual environmental training and new employee orientation, where they ask a manager to share a personal story about why they care about the environment and an example of how they have supported an employee in making an environmental improvement.

This is one example, but each company will develop a unique policy that reflects its mission and culture while still meeting the SP2 requirements.

How To Do It

Rather than start with the requirements from SP2, we recommend that you first gather general company mission statements, goals, and culture elements to see how you can fit the environmental policy into the existing company culture. Next, consider which aspects of environmental performance and protection speak to you and the employees. (Is it a focus on eliminating waste? Protecting children? Being good neighbors? Protecting the river behind the facility? Serving customers? etc.). Finally look at the requirements from SP2 (including continuous improvement) and see how you can weave those into the language that everyone is already comfortable with.

Next, plan the release and communication of the policy. How will everyone learn about it? How will you make it real and tangible? How will you continue to reaffirm your company's commitment to the environmental policy? How will new employees learn about the policy? Once you answer these questions, update your existing documents to add cues and reminders to make sure the policy continues to be communicated and relevant.

Gap Analysis Questions

- Can we show someone a company environmental policy?
- Does it include a commitment to reducing waste, energy consumption, and water consumption?
- Does it include a commitment to continuous improvement in environmental performance?
- How has it been communicated to current employees?
- How will new employees learn about the policy?

2. Facility Impact Assessment

Requirement

The facility must detail a list of 1) business activities, 2) their environmental impacts, and 3) methods used to control or reduce those impacts. Each business activity must be evaluated for its waste impacts and may also be evaluated for energy and water consumption. The facility must then describe the current control measures used to reduce the identified impacts. Finally, the impacts that are high priority and don't have adequate controls should be identified. These will then inform target setting to improve controls and reduce impacts.

Description

A facility impact assessment contains three different parts:

1) A list of primary business activities at the facility
2) A list of environmental impacts and risks for each business activity
3) A list of the methods used to control or reduce those impacts

The minimum SP2 requirement is for each business activity to be evaluated for its impact to waste, either waste generated onsite or waste generated after it leaves the facility (downstream impacts). In addition, many businesses find value in evaluating impacts to energy use (such as electricity or natural gas) and water use.

After identifying the business activities and impacts, the facility should prioritize the impacts for reduction. This is often done by estimating the total impact (such as pounds per year or kilowatts per mattress produced) so that the largest impacts become visible. Even if there's not a system in place to directly measure the impacts, coming up with reasonable estimates (such as weighing the fabric scrap from three different mattresses and taking the average) are sufficient to make this assessment useful.

Examples

ABC Mattresses has operations that include cutting, dyeing, and drying operations. Here is a simplified way of showing the flow of Activities, Impacts, and Controls for each activity.

BUSINESS ACTIVITY	ENVIRONMENTAL IMPACT	CONTROL METHODS
Receiving	**Waste:** Scrap pallets, corrugate packaging, and plastic banding	Recycling outlets for pallets, corrugate baler
	Energy: Dock lights consume electricity and are often left on when not in use	None currently. Exploring automatic shut-off of dock lights.
Cutting	**Waste:** Scrap cloth	Improved cutting templates reduce outfall scrap. Baler allows baling of scrap cloth for local recycling vendor.
	Energy: High-lumen lighting consumes electricity	None currently. Exploring LED lighting upgrade.
Sewing	**Waste:**: Offcuts from hemming, plastic thread cores	Changed to alternative chemistry to reduce sludge generation.
	Water: Laundering hemmed swatches consumes large amounts of water, which then becomes industrial wastewater	Onsite filtration of water allows second reuse for next batch.
HVAC	**Waste:** Filter media replaced monthly	None currently. Landfilled.
	Water: Cooling tower consumes water for chilling	Climate control set point monitored to reduce cooling
	Energy: Compressors and air handlers use electricity; comfort heating and hot water use natural gas	None currently. Considering replacing gas-fired hot water with electric.

Later, during a Program Verification walk-through, they identify that the high amounts of outdoor facility lighting is a significant impact to waste (spent bulbs) and energy (inefficient lighting), so they add it to their Facility Impact Assessment, estimate the impact, and set goals to implement control methods.

How To Do It

It is important to think of these wastes of materials, energy, and water as waste value for the company and unnecessary impacts on communities and the environment. By eliminating waste, companies become more competitive and better neighbors and community members. For companies on a Lean journey, this exercise is a very tangible way of teaching how to identify and eliminate wasted value. It is a perfect learning ground to let your staff practice their Lean training on topics that are visible, familiar, and not high risk.

Most companies start by thinking about their manufacturing process and identifying the key steps or activities in that process. Then they identify any major support activities that also have a significant impact. This can include shipping and receiving, facility infrastructure (i.e. mechanical, HVAC, lighting, etc.), and office functions.

During the facility impact assessment stage, the objective is to chronicle what Control Methods are already in place. It is often tempting at this point to want to jump to "fixing it", but the Facility Impact Assessment just documents what is currently being done.

The objective is not to create a comprehensive Facility Impact Assessment in your first attempt. The objective is to learn a method of cataloging environmental impacts and wasted value and then methodically working through each impact to reduce it. Later, as more impacts are discovered, they are added to the document so that the Facility Impact Assessment improves and more wastes can be evaluated and reduced. It is the iterative process that makes this assessment beneficial.

Since this assessment is ultimately a subjective scoring (so as not to get bogged down in accounting for every pound and kilowatt), it is important for one person to own this process and have a hand in the assessment of every activity. They need to discuss the details with people who work in that activity, but by having one person in touch with every activity, they can calibrate their intuition for more consistency across the assessment.

Gap Analysis Questions

- Have we listed the major business activities in our operation?
- Have we listed the major environmental impacts for each business activity?
- Have we listed the existing activities that control or reduce environmental impacts?

3. Goals and Targets

Requirement

Based on the Environmental Policy, Facility Impact Assessment, Employee Engagement, Program Verification findings, and other management direction, the facility must set annual qualitative goals and quantitative targets to reduce environmental impacts from waste management. They are also encouraged to consider targets to reduce energy and water use. The goals must be approved by facility management and reviewed with management at least annually.

Meeting the targets is not necessary to achieve certification, but the facility must show progress and track related data. Goals and targets must be communicated to all employees and onsite contractors. The facility can decide whether the targets are purely internal or also communicated externally via public outreach.

Description

Goals and targets are the beginning of the continuous improvement process for your environmental impacts. The objective of this process is to learn from the information your SP2 activities have gathered and then make informed decisions about how you can eliminate the most wasted value for the least effort. Goals are high-level and tend to be qualitative (idea-based) and provide a longer-term direction. Targets are more specific and quantitative (number-based) with specific measurements that can be tracked and target levels to reach for.

In a facility's first year, we suggest they have 1-3 goals, with 1-2 targets to achieve each goal. In particular, having multiple targets to work on can give the team more chances at success as they first learn the subject matter. This can help build engagement and confidence rather than having a single target which may not succeed in the first year.

Goals and targets should be reviewed at least once per year and either reset in the same form or changed. If a target is achieved early in the year, management may wish to set a stretch goal for even greater improvement. Sometimes the same goal will serve the facility well for many years. Other times the SP2 team will determine that the goal has served its purpose and it is time to move on to more productive goals or target formats.

Organizationally, goals and targets can be the basis for building engagement with the workforce around improvement processes and creative problem-solving. Targets that inspire and resonate with your team can be as important as the targets that have the greatest potential impact, particularly early in your program. Keeping your team motivated and engaged in the process is key to a successful program.

Examples

The ABC Mattresses SP2 team reviews their Facility Impact Assessment and sees that the single largest generator of landfilled waste is their cutting operation. They set a goal to "eliminate wasted material from the cutting operation". This goal is long-term and will not be accomplished overnight or from a single project. To support the goal, they set two targets:

1) Complete a review of nearby recycling vendors to identify any who can recycle offcuts by the end of November.

2) Reduce offcuts by 10% through pattern improvements by next June.

XYZ Sleep Products is focused on energy and has set a goal "to engage all employees in energy-saving efforts". To meet the goal, they set three targets:

1) Increase energy efficiency idea submissions to 2 per employee per month by February

2) Implement at least 3 employee suggestions per week and report the results in the weekly meeting

3) Reduce "equipment/lights left on" findings in our Program Verification walkthroughs by 30% by May.

These two examples describe very different approaches and styles, but follow the same pattern of an idea-based goal and number-based target. The goals communicate the big idea and the targets are specific, measurable, achievable, relevant, and time-bound.

How To Do It

Here is a checklist of other parts of your SP2 to review when coming up with goals and targets:

- **Facility Impact Assessment:** Are there identified impacts in the assessment that are not adequately controlled? Which ones have the greatest impacts? Which ones would be the easiest to fix?
- **Employee Engagement:** What feedback have employees provided during training? What ideas for improvement have employees contributed? Do any of those ideas address multiple environmental impacts?
- **Program Verification:** When reviewing notes from periodic walkthroughs, what topics come up repeatedly? What ideas for improvement are recorded from these walkthroughs?
- **Corrective and Preventative Actions:** Which corrective actions have been resistant to completion? Which preventative actions require longer-term projects to address? Can any preventative actions be adapted to solve other problems?
- **Environmental Policy:** What topics does our Environmental Policy prioritize? Are there other company goals that we should combine with our sustainability goals and targets?
- **Management Direction:** What are the priorities of the management team? What other problems can be solved at the same time these environmental impacts are eliminated?

Usually, after reviewing the other parts of your SP2 and making notes, the top options for goals and targets will become clear. Sometimes some additional quick calculations will help to determine the biggest improvement for the least effort. The important thing is not to pick the absolute best goal, but rather to establish a practice of setting goals and working toward continuous improvement. Remember when planning targets that you must complete one partnership with a supplier or service provider per year, so that can support or even be one of your targets.

One of the biggest concerns people have over goals and targets is what will happen if they are not achieved. If the SP2 team is afraid of failure or think that it will result in punishment, then the targets will be modest and safe and much creativity will be lost from the problem-solving. When discussing goals with facility leadership, it is important to understand what will happen if the efforts fall short of a target. Make a distinction between ignoring a target and sincere efforts for progress coming up short. This will help to convey expectations and create some safety for bold, aggressive goals.

Gap Analysis Questions

- Do we have qualitative goals to focus our efforts?
- Do we have quantitative targets to measure our progress to those goals?
- Are the quantitative targets specific and do they have target dates?
- Do we have actions or projects that are working toward those targets?

4. Measurement of Progress

Requirement

In addition to tracking the data necessary to evaluate targets, the facility must track all waste generated and its disposition (reduce, reuse, recycle, incineration, or landfill). In addition, facilities are encouraged to track energy consumed and water used. Targets do not need to be set against all of these.

Description

This requirement describes the metrics that must be tracked in order to measure progress on targets and continuous improvement.

In order to determine if the facility's efforts are improving, it must measure its progress. There are two main types of measurements that are required for certification:

1) **Target Metrics:** Based on the facility's targets under the Goals and Targets Requirement, the facility must track whatever is necessary to determine if the quantitative target has been achieved.
2) **Non-Target Metrics:** In addition to the facility targets, the facility must track its waste metrics, including weights and disposition (destination) of each material. The facility will also find it helpful to track energy and water consumption, even if no targets are currently associated with them.

Tracking waste metrics requires three key elements:

1) **Material:** The type of materials being tracked (cardboard, wood, steel, etc.). These categories can be whatever is most relevant to the facility.
2) **Weight:** The weight of the given material, usually in pounds or tons. Please specify the units of measure for the weights, taking care to specify US tons or metric tons.
3) **Disposition:** How the waste was handled after leaving the facility. These categories are usually Reused (for materials reused or donated in their current form), Recycled (including composted), Incinerated (including waste-to-energy), and Landfilled.

Energy metrics are often measured in terms of kilowatt-hours (kWh) for electricity. Natural gas is measured in either therms, CCF (hundred cubic feet), or British Thermal Units (BTU). Water is often measured in gallons, but water bills can be highly variable in their units (including thousand gallons, acre-feet, or hundred cubic feet).

Examples

A facility may generate a monthly report that covers a variety of metrics and combines them in different ways to show progress on targets.

MATERIAL/METRIC	DISPOSITION/SOURCE	VALUE	UNIT OF MEASURE	TARGET?
Metal	Recycled	20	Tons	
Cardboard	Recycled	30	Tons	
Paper	Recycled	10	Tons	
Plastics	Recycled	10	Tons	
Mixed	Landfilled	30	Tons	
Recycling Rate	Waste Metric	70%	%	Target 75%
Electricity	Grid Power	3500	kWh	
Electricity	Renewable	200	kWh	
Electricity per unit	Energy Intensity	17	kWh/mattress	Target 15 kWh/matt
Water	Municipal	1800	Gallons	

How To Do It

Waste metrics are often gathered in one of three ways:

1) Reported weights or weight tickets: Measured weights reported by the hauler. This is most common for larger collection container like 20-40 cubic yard containers or compactors.

2) Estimated weights from sampling: An estimate of weights based on a measured sample, multiplied by the count of units. This is most common for items like pallets and baled materials where there is some slight variation between items.

3) Estimated weights from volume: An estimate of weights based on the volume and collection frequency. This is most common for smaller collection containers like 2-4 cubic yard dumpsters or front-end loader containers.

Gathering reported weights tends to be more straight-forward as long as you pay attention to the units of measure. Some haulers may report a single weight for a full month of service and others may report the weight per haul, which you can sum for monthly metrics. Some may not report weights on bills, but will provide them upon request.

Estimating weights from sampling, involves measuring a sampling of items (such as pallets or bales). For instance, if your facility recycles 200 pallets each month it may not be practical to measure the weight of every pallet. Instead you can take a sample of five regular pallets to get an average weight (such as 17 pounds) and then multiply that weight by the count of units (such as 200 pallets) to get the total weight (17x200 = 3400 pounds). It is important to record your method and apply it consistently each month. It is also recommended that you resample on a periodic basis (such as once per year, or after a major event like supplier change) to keep your metrics current.

Estimating weights based on volume is much less precise, but may be the only option available. If you have the ability to measure sample weights of small containers (such as by placing a 3 cubic yard container on a freight scale), then that is preferable as these containers are often picked up when less than full. If that is not feasible, the US EPA offers a guide, "Volume-to-Weight Conversion Factors", with conversions for many common materials. To use it you need to identify the proper conversion factor (such as Paper > Old Corrugated Containers > Uncompacted) and the total volume per month. For instance, if you have a 4 cubic yard container of unflattened cardboard (Old Corrugated Containers) that is picked up 3 times per week, you can convert to pounds per month like this:

$$\frac{4 \text{ cubic yards}}{\text{container}} \times \frac{3 \text{ containers}}{\text{week}} \times \frac{74.54 \text{ pounds}}{\text{cubic yard}} \times \frac{4.33 \text{ weeks}}{\text{month}} = \frac{3873 \text{ pounds}}{\text{month}}$$

To ensure consistency and avoid relearning the process each month, it is recommended that the facility establish a basic set of instructions or standard operating procedure (SOP) describing how each metric is collected (who to ask, where it is stored, any unit conversions needed, etc.).

For water metrics, you can use the following conversions to get to gallons.

WATER UNITS OF MEASURE	MEANING	TO GALLONS
CCF or HCF	hundred cubic feet	748
Kgal	thousand gallons	1000
AF	acre-feet	325,851

Gap Analysis Questions

- Are we tracking the metrics necessary to judge if our targets are successful?
- Are we tracking the generation and destination of material waste?
- Are we tracking energy and water use? (not a requirement)
- Do we have a way of making sure that they're tracked the same way each month?

PEOPLE

The requirements of this section layout how a facility engages people, both inside the facility and outside, to improve sustainability.

5. Employee Awareness and Engagement

This section is organized slightly differently, with Description and How To Do It sections occurring first for each of Employee Awareness and Employee Engagement. Then the Example section is at the end to show how it all can come together.

Requirement

The facility must engage its employees in the sustainability program. This must include at a minimum:

Employee Awareness

- Identifying sustainability training needs by subject and job function,
- Delivering sustainability training and tracking completion,

Employee Engagement

- Gathering ideas for improvement from employees, and
- Providing feedback on facility progress.

Training can take many forms but must be documented and improved over time.

Employee Awareness

Description

Employees of the company must be trained and involved in the broader sustainability program in specific ways. There are four requirements in this section (listed above), which spell out a roadmap for building employee engagement in general.

Identify Sustainability Training

The first part of this requirement is to methodically identify what training is needed for each job function. This is typically a Training Matrix of trainings and job functions, with marks indicating which functions need which training. This sort of matrix is often needed for other purposes (such as operational or compliance training), so adding to an existing matrix will meet the needs of this requirement. Here, "job function" might refer to a named job position (such as "Assembly Supervisor") or it might refer to a specific function (whoever takes the recycling to the larger containers). The facility can decide whether each training is one-time only (once an employee is trained once, they no longer need to receive that training) or if there is some regular recurrence of the training (such as annually or every 3 years). A common compromise is to have a more detailed initial training and then to conduct an annual "sustainability summit" to update the employees on changes to the program and new targets, identify challenge areas, and work on problem-solving.

Types of Training

Throughout this section, it is important to keep in mind that the requirement treats "training" as a general term that can encompass many forms, not just restricted to classroom style presentations. Short presentations during shift meetings, on-the-job training, hands-on workshops, and self-directed learning (like e-learning, podcasts, videos, and the like) are all valid ways to meet this requirement. The distinction of "training" from other forms of communication or informal discussion is that training has 1) a lesson plan (the content of what's covered and training materials in whatever form they take), and 2) a record of who was trained, when, and who delivered the training. Whether a facility decides to do written tests, set performance requirements, repeat training, etc. is entirely within their discretion. The lesson plan should be periodically reviewed, updated, and improved over time to best serve the facility's sustainability goals.

Deliver Sustainability Training
Once you have identified which training is needed for a given job function, you can now identify which employees are in that job function and need training. After they receive the training, record the date of completion to show they met the training requirement.

It is important to periodically review training needs (such as once per month) to identify if any needs are outstanding. There are three situations that lead to outstanding training needs that are important to anticipate: new hires, shifting roles, and missed training.

When new employees are hired the Training Matrix can be used to quickly assess which job functions they belong to and which trainings they need. The SP2 Team should partner with HR to recognize when new hires arrive so that they can receive necessary sustainability training as part of the onboarding process.

When existing employees shift roles (from one job function to another), the SP2 Team will need a way to learn about the changes so that they can update the Training Matrix and identify if any new training is needed.

Finally, an individual employee may have been out when training was delivered. A periodic review of the training matrix can serve as a reminder so that no one "falls through the cracks" and everyone is trained on the sustainability program.

How To Do It

Identify Sustainability Training
To determine what sustainability training is needed, it is important to start at Goals and Targets. Training that is in service to the facility targets will stay grounded in practical, actionable actions rather than vague concepts. For each target, answer two questions: 1) who needs to act on it and 2) do they need additional knowledge, skills, or values to do it.

Types of Training
Once the topics of training are identified, the SP2 team must then decide what form that training should take. Rather than assuming it must be classroom lecture-style training, it is important to match the type of training to the topic considering three issues:

1) **Learning:** What type of training will make this topic easiest to learn?
2) **Logistics:** What will be the easiest training to implement?
3) **Lasting:** What will help the training to have a lasting impact on facility performance?

Generally speaking, there are three types of information that training needs to convey:
1) **Knowledge**
2) **Skills**
3) **Values**

Knowledge requires the learner to know something they didn't know before (like that #5 plastic is Polypropylene) and is most easily adapted to a range of training types. A lecture, worksheet, or poster can all help to convey knowledge. **Skills** require the learner to do something that needs improvement (like searching parts for the plastic recycling symbol and placing #5 plastics into the correct bin). Learning skills happens best with hands-on training and practice (it won't be perfect after a single try). A hands-on practice station with actual parts or an on-the-job training and feedback will help provide practice for developing skills. **Values** require the learner to care about something that they may not immediately see as important (like why recycling plastics is important to both the environment and the local economy). Factually explaining why something is important can be combined with personal connection to the topic for greater impact. For example, the facility manager showing how actions are making the plant more competitive, how the actions connect to their local or global community, or inviting a manufacturer that uses recycled plastic can help make a value tangible.

Once a type of training has been selected, the next step is to take the lesson plan and create training materials. Whether it is a slide deck, handouts, a trainer checklist, or a worksheet, some sort of written training material is important to ensure consistency of the training between trainers and over time (to make sure topics don't "fall through the cracks"). It is important to recognize that once training materials have been created, they can still be adapted and improved upon, so it is better to get started and begin learning how the training works, rather than to wait until you have the "perfect" training.

Deliver Sustainability Training

The next step is to identify who will deliver the training and make sure they are familiar with the training materials. Some "Train the Trainer" time may be required (such as if the SP2 Team trains each supervisor, who is then responsible for training their team).

Next, the trainer uses the training materials to deliver the training, make notes about how the training went and how it can be improved, and records who attended and has completed the topic. If the facility wants some sort of quiz to verify understanding, then that is completed, graded, and any missed questions are discussed. Then, the record of training is returned to the SP2 team or whoever tracks training for the facility so that anyone who missed training can be identified for make-up training.

Employee Engagement

Description

Simply training employees is just the first step in engaging them in the program. Also crucial is the two-way communication of listening to employee ideas and providing feedback on progress against sustainability goals.

Gather Ideas for Improvement

In addition to training, another important part of engaging the workforce in sustainability is seeking their ideas on how to reduce wasted materials, energy, and water. Depending on how your company normally seeks improvement ideas, this can take many forms including suggestion boxes, kaizen events, breakout meetings focused on particular challenges, or manager interviews. All of these will meet the requirement as long as the ideas are recorded and evaluated.

Some of the ideas may be determined to be infeasible or may be scheduled for later implementation – they need not be immediately acted upon to meet this requirement. The important activity is the collection and evaluation of employee ideas.

Acting on employee ideas, no matter how small or large, is the quickest way to build engagement and to show employees that their ideas are valued and important, which leads to more engagement and problem solving. No one knows a job better than the person who does it.

Provide Feedback on Progress

In addition to communication from general employees to the SP2 Team, it is important for the SP2 Team to also communicate to the general employees on the progress of the sustainability program. This often takes the following forms:

- Feedback on ideas submitted by employees, including whether they will be acted on, deferred, or not acted on and why
- Progress on sustainability targets and metrics, such as through shift meeting announcements, progress boards, or other mechanisms common to your facility.
- Changes to sustainability programs, such as changes to recycling sorting, energy conservation measures, or other processes.

The requirement does not specify a particular format or function, only a demonstration that employees are kept informed of progress and changes.

Other Benefits

In addition to being an SP2 requirement, there are also several broader operational benefits from involving employees in the sustainability program. For facilities that are working on building problem solving or continuous improvement skills in the workplace, sustainability topics offer a "practice area" where learners can try making improvements on topics outside the core product.

There are also numerous studies that show that employees build engagement with their work when they can work on sustainability topics with a broader community benefit and personal interest, leading to more participation and retention. Looking at these programs as professional development opportunities can help meet the needs of several departments, rather than being a niche side program.

How To Do It

Gather Ideas for Improvement

There are many methods for gathering ideas for improvement. It is best to build on a method that is already familiar to employees, provided it is being used. If it isn't, then it's an opportunity to experiment with another method which may be adapted to non-sustainability topics as well. The important thing is that it be accessible to employees and that they receive feedback on their suggestion (which shows that it's being received and taken seriously). If the suggestion is submitted anonymously, then responses can be posted on a board or discussed in shift meetings. Building engagement takes time and requires a demonstration that submitted ideas don't just "go into a black hole", never to return. Picking some early suggestions for fast, visible action can go a long way toward demonstrating that submitted ideas are valued and can result in improvement.

Provide Feedback on Progress

Like much of SP2, it is probably best to build on an existing method of providing feedback on progress of other non-sustainability topics. Existing shift meetings, progress boards, newsletters, announcements, or other existing methods can be the perfect way to keep employees updated on progress toward targets, priority issues and learning, and to celebrate successful ideas that were submitted.

Other Benefits

Within this SP2 Employee Awareness and Engagement requirement is the biggest opportunity for improving the overall functioning of the facility through building engagement with employees. Employees that develop a problem-solving habit and are looking for ways to improve their day-to-day work give a valuable contribution the operation.

Examples

The following sections give some examples of how our fictitious ABC Mattress decided to implement each of these requirements in their SP2 efforts. It shows how the four requirements can come together to form a cohesive program, reflecting the culture and priorities of a particular organization.

Identify Sustainability Training

ABC Mattress has decided that it needs three types of sustainability training to support its sustainability program. All employees get a primer on the recycling program, proper sorting, and energy saving best practices. The energy-saving equipment configuration measures only apply to the maintenance team for operational equipment, so they are the only ones to receive that training. Finally, supervisors get a training on spotting environmental waste (wasted materials, energy, and water) so that they can look for wasted value in their processes and coach their teams. The management decided that the environmental policy was self-explanatory, so it only needed communication, rather than more involved training. This identifies their training needs: both what needs to be trained, and who needs to receive each training. They make a training matrix to keep track of it:

TRAINING	MAINTENANCE	SUPERVISORS	ALL EMPLOYEES
Recycling Sorting	Annually	Annually	Annually
Energy Saving Best Practices	Annually	Annually	Annually
Energy Saving Equipment Settings	Once		
Spotting Waste			Every 2 years
Supply Chain Waste Reduction		Every 2 years, Procurement only	

ABC mattress develops a lesson plan for each of these three trainings, writing down what topics are covered, what the important take-aways are, and clarifying any common confusions. Each year, they check the lesson plan against their Correction & Preventative Actions list to see if any recurring issues need to be clarified. They also look at the following year's Goals and Targets to see if anything needs to be added to support them.

Types of Training

Now that ABC Mattress has identified the topics of training, they decide what type of training would work best. For the Recycling Sorting, they develop a few slides to add to an existing annual compliance training for safety and hazardous waste – this way they don't have to plan an additional all-employee training. For Energy Saving training, they decide that it will work best if the Maintenance Manager conducts the training as a walkthrough of the facility, explaining the energy-saving measures at each piece of equipment. No slides are created, but the Maintenance Manager makes a one-page overview for each piece of equipment that they place in a plastic sleeve and hang near the equipment for easy reference (some of the pages are short now, but may get more detail after some upgrades). Training becomes a walk through with the maintenance team, reviewing the hang-tag information and demonstrating on equipment. Finally, they decide to conduct the supervisor training on spotting environmental waste as a workshop, rather than a slide show. Each supervisor is asked to bring three ideas to the workshop. At the workshop they receive a short intro and then discuss their three ideas, look for common themes, and then work together to brainstorm ways to reduce the waste.

Though each of these three activities is very different, they all qualify as training since they have written lesson plans, completion is tracked, and the plans are improved over time.

Deliver Sustainability Training

Now that ABC Mattress has identified the roles and training needs, they assign the Energy Saving training to the 5 maintenance staff, the Spotting Waste training to the 9 supervisors, and the Recycling Sorting training to all 113 employees. After each of these three types of training, all learners are tracked as complete along with the date of completion in a simple spreadsheet. The SP2 Team will review the completion list periodically to see if anyone missed a training so that a make-up training can be provided.

Each year, the training is reviewed and refined based on what they learned in other SP2 activities, like Program Verification or Corrective & Preventative Actions. The SP2 Team reviews the Program Verification findings and sees a recurring issue where a new plastic fabric core is found in the landfill bins even though it can be recycled with the rigid plastics. They update the Recycling Sorting slides to specifically point out the new material and where it should go.

Gather Ideas for Improvement

ABC Mattress decides that the best way to gather ideas for improvement is through in-person discussion. They are already implementing Lean Production approaches and have started teaching their staff continuous improvement techniques. So, they dedicate 10 minutes in each standing shift meeting for a discussion, calling attention to opportunities for reducing wasted materials, energy, and water. Employees that have made small improvements are encouraged to share what they did, showing "before and after" pictures, and the shift celebrates their improvement. New ideas are identified and recorded, then the supervisors combine their lists once per week and the SP2 Team reviews the larger improvements and works with the management team to put them into three categories: Do Now (act on it quickly to realize savings), Schedule for Later (whether next month or next fiscal year), or Return to Refine (can't do it as suggested, but give feedback and see if it can be refined). Within two weeks, the SP2 team returns the list to the supervisors who share the results with their teams.

Provide Feedback on Progress

To keep their employees updated on how their sustainability journey is going, ABC Mattress added a section to their operational progress board. In addition to the normal charts on orders, fulfillment, safety, and quality metrics, they add metrics for recycling, energy, and water usage. They also list their Goals and Targets for the year as well as highlight some recently completed improvements. Once a month, they update the sustainability metrics with data from the previous month so that employees can see the results of their efforts.

When communicating to employees, it's important to translate your metrics into terms that are more relatable (for example, most people can't relate to a metric ton of CO2).

For greenhouse gasses, the US EPA has a great calculator to show you equivalencies:
https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

For instance, saving 10,000 kWh of electricity is the same greenhouse gasses as over 17,000 miles traveled by an average passenger vehicle.

For translating energy (such as kWh or Btu), the Energy Information Administration has an energy conversion calculator:
https://www.eia.gov/energyexplained/units-and-calculators/energy-conversion-calculators.php

For example, 1 million BTU is the energy that comes from burning 106 pounds of coal (0.053 short tons * 2000 pounds/short ton).

Also, this report has some equivalencies to show how much BTU an average household uses.
https://www.eia.gov/consumption/residential/data/2015/c&e/pdf/ce3.1.pdf

Specific for the Pacific Region, this report has the million Btu per household for different home energy use applications:

REGION	TOTAL	SPACE HEATING	WATER HEATING	AIR CONDITIONING	REFRIGERATORS	OTHER
Pacific	53.1	17.5	15.3	3.8	2.6	18

So saving 4 million Btu is about the same as an average household's air conditioning for the year.

All of this can make it easier for employees to see their progress and understand that they're making a meaningful difference.

Other Benefits
Since ABC Mattress is implementing Lean Production approaches, they are looking for opportunities for their employees to practice problem solving and continuous improvement. They decide that focusing their next kaizen event on material waste in the facility will help illustrate a tangible waste (wasted materials) to practice Lean problem solving on. Later in the year, they do a focus on waste energy after a short primer on how to recognize wasted energy in its various forms (wasted machine operation, light, heat, and compressed air).

Gap Analysis Questions

- Have we identified which job functions need training and on which sustainability topics? How often?
- Have all employees in job functions that require training completed the training?
- Do we have one or more methods for gathering employee ideas for improving our sustainability performance?
- Do we have one or more methods with share information with employees about the progress of our sustainability program?

6. Supplier Partnership

Requirement

The facility must partner with their suppliers of materials and components, logistics partners, and/or providers of waste collection and recycling services to help achieve reductions to waste. They are also encouraged to collaborate with energy and water utilities to help achieve reductions to energy use and water use. The facility should engage in at least one project per year with a supplier or provider to reduce environmental impacts identified in their Facility Impact Assessment. This can include improving recyclability, eliminating waste, reducing sorting contamination, or reducing energy or water consumption. Any specific project need not be successful to achieve certification, but effort must be demonstrated toward continuous improvement.

Description

Often in order to make big improvements, you must partner with groups outside your organization. For sustainability topics, the most common partners are:

- **Material Suppliers:** raw materials, components, packaging
- **Logistics Partners:** shipping, transport
- **Waste & Recycling Service Providers:** waste haulers, recycling haulers
- **Energy & Water Utilities:** power provider, water provider

This prog Packaging reduction
- Substituting nonrecyclable packaging with recyclable
- Incoming returnable packaging program

Examples of partnerships for each type of partner include:

MATERIAL SUPPLIERS	LOGISTICS PARTNERS	WASTE & RECYCLING SERVICE PROVIDERS	ENERGY & WATER SERVICE PROVIDERS
• Packaging reduction • Substituting nonrecyclable packaging with recyclable • Incoming returnable packaging program	• Reducing outgoing packaging without product damage • Outgoing returnable packaging program • Return logistics programs	• Adding a recycling program • Reducing contamination/ increasing material value • Right-sizing service levels	• LED lighting upgrade with rebate program • Demand response discounts • Adjusting Time-Of-Use rates • Installing low-flow water fixtures • Selecting Energy Star or Water Wise appliances

How To Do It

The best place to start is to review your Goals and Targets to see if any of them would benefit from partnership with suppliers or service providers. Reviewing last year's Corrective and Preventative Actions can also provide inspiration for partnerships needed (such as to prevent recurring problems). Identify at least three different partnerships opportunities, select the most promising and then reach out to explain the opportunity and ask for assistance. If the first partner doesn't work out, you have additional opportunities to draw on.

Gap Analysis Questions

- Have we identified the major suppliers and service providers that have the biggest impact on our sustainability performance?
- Have we completed one project in partnership with a supplier or service provider in the last year?

7. Best Practice Sharing

Requirement

The facility must engage in best practice sharing with others in the industry, such as through events hosted by the Mattress Recycling Council or International Sleep Products Association. This can include presenting in webinars or at conferences, mentoring others starting their sustainability journey, participating in news stories in industry publications that discuss best sustainability practices, or contributing to case studies.

Description

Improving the sustainability of your operation is a goal that requires hard work, creativity, and learning. No one person or operation can do it all, but there is a great opportunity to learn from the best practices of others and to share your own best practices with peers. All too often, after an improvement project is finished, the team rushes off to work on their next improvement. By taking the time to reflect on what happened, what went well, what didn't go well, and what was learned, the improvement also becomes an opportunity for skill development and growth. Then by taking that learning and putting it into a format for best practice sharing you are helping others to follow your lead, multiplying the environmental benefits of your improvement.

This program requirement requires you to take a successful practice or change from the facility and share it with others. This could be in a variety of venues or formats:

- MRC/ISPA events
- Webinars
- Case Studies
- Sister Facilities
- Mentoring
- Industry Publications/ News

Examples

ABC Mattress just finished a sustainability improvement where they partnered with a supplier to substitute an unrecyclable fabric roll core with a recyclable material, improving their recycling rate. They decide to partner with their supplier and offer the story to an industry magazine who publishes a story with before-and-after pictures and interviews with leads on the project. Both ABC Mattress and their supplier receive good press coverage and they inspire other manufacturers to follow their lead.

XYZ Sleep Products is part of a network of mattress manufacturing sites throughout the country. After implementing an offcut reduction program that reduced wasted fabric, the improvement team takes the time to create a short slide show showing what they did, how they did it, what they learned, and plans for further improvement. They share this slide show during a conference call with their sister facilities so that other facilities don't have to "recreate the wheel" and can benefit from their creativity.

How To Do It

After finishing a successful project to reduce environmental impact, first reflect on the project with the following questions

- What happened?
- What went well (and should be repeated in the future)?
- What didn't go well (and should be avoided in the future)?
- What did we learn?

Next think about how you could take your improvement and make a simple set of instructions for others to follow your lead.

This builds upon your reflection before to share:

- What did we do? (before and after)
- What did we need to do it? (materials, people, budget)
- What was the result? (outcome, improvement, metrics)
- What do we wish we would have known at the beginning?
- What tips and tricks will make this easier for the next team?

Of course, depending on who this is being shared with you may want to give more or fewer details (e.g. you may want to give specific budget figures when sharing with a sister facility, but for a public magazine you may want to just give a rough cost savings percentage).

Then share the improvement internally. This is a way of recognizing those who made the improvement, providing a concrete example of continuous improvement, and an opportunity for leadership to shift the culture more towards a continuous improvement mindset.

Finally, share the improvement externally through any of the methods above. If you are not sure of a good way to share it, please contact the SP2 program (SP2@mattressrecyclingcouncil.org) as we are always looking for case studies and webinar topics to build the sustainability practice in the mattress industry.

Gap Analysis Questions

- Have we identified the major suppliers and service providers that have the biggest impact on our sustainability performance?
- Have we completed one project in partnership with a supplier or service provider in the last year?

PROCESS

The four requirements of this section layout the processes necessary to take a methodical approach to improving sustainability at the facility.

8. REGULATORY COMPLIANCE

Requirement

The facility must be in compliance with all applicable environmental rules and regulations before it can be certified or recertified. Any major violations will preclude certification until they are corrected. This includes federal, state, regional, and local regulations related to impacts to human health and the environment, including non-hazardous waste rules like ***Mandatory Commercial Recycling*** and ***Rigid Plastic Packaging Container (RPPC) Program***.

Description

Environmental regulations form the minimum requirements for responsible operation to limit environmental impacts. A sustainability program shows that a facility is going above and beyond the minimum legal requirements to generate value for the company, customers, and communities they serve. To represent this minimum requirement, SP2 requires that a facility not have any unresolved violations in order to be certified or recertified. This does not mean that a facility cannot have a history of compliance violations, so long as they are corrected and a preventative action plan put in place to prevent them from happening again.

This requirement is focused on the environmental compliance of facility operations. It does not include other non-environmental regulatory compliance requirements, such as occupational safety, tax requirements, fire permits, or zoning requirements.

Examples

Regulatory requirements to limit environmental impact can come from different sources. These can include regulations from federal, state, regional, and local authorities. Federal requirements come from the US EPA. State requirements come from agencies like the California EPA or its departments like the Air Resources Board (CARB), Resources Recycling and Recovery (CalRecycle), Toxic Substances Control (DTSC), or Water Resources Control Board (SWRCB). Regional requirements come from agencies like our local Regional Water Quality Control Board (RWQCB) or Air Quality Management District (AQMD). And local requirements can come from your city or county agencies or local Certified Unified Program Agencies (CUPA).

As an example, ABC Mattress received an inspection from their CUPA and found a violation of stormwater protection rules (such as uncovered outdoor waste containers). They receive a notice of violation and then complete a plan to correct the violation (such as putting the containers under a cover or ensuring that they are closed after each use) and preventing another violation (such as a periodic self-inspection). Since they have completed their correction and prevention work, they are now eligible for SP2 Certification.

How To Do It

SP2 does not provide guidance on regulatory compliance. Resources are available through regulatory agencies. If you're unsure if you are meeting all regulatory requirements, California offers CalGold as a portal for finding permit information for your business. Many local counties or cities also offer business guidance for companies that want to identify their requirements.

Gap Analysis Questions

- Have we identified applicable regulatory requirements?
- Do we have a plan for meeting our responsibilities to them?
- Have we received any notices of violation?
- Have we completed the correction and prevention efforts need to ensure it doesn't happen again?

9. PROGRAM VERIFICATION

Requirement

The facility must perform periodic evaluations of the sustainability program's implementation and its continuous improvement. To do this, it must maintain a checklist to review waste programs and conduct periodic walkthroughs. Facilities are also encouraged to review energy and water topics on the same walkthroughs. Action items to correct program elements identified during the walkthrough must be added to the Corrective and Preventative Actions (CAPA) process.

Description

This requirement is to develop a practice of periodically verifying that your sustainability program is working the way you designed it. Program verification is a living process that is tweaked and improved over time providing the foundation for a variety of corrective and preventative actions, annual targets, and improvement practices to build on.

There are four main activities for program verification:

- Develop and maintain a checklist
- Conduct periodic walkthroughs and record observations
- Identify opportunities for improvement
- Continuously improve the checklist

Develop and maintain a checklist

The checklist is a simple list of things that should be "right" for the sustainability program to succeed. For instance, recycling bins will need to be in a certain location, with a legible label, a certain lid, etc. Energy-consuming equipment may need a low-power mode enabled or should be put in standby mode at the end of shifts. Water-using equipment that has leaked in the past should be checked to make sure it's not leaking now. No one piece is particularly complicated, but it's difficult to look at a complicated scene and notice everything without using a checklist.

Conduct periodic walkthroughs and record observations

Using the checklist, the facility should have a schedule of conducting periodic walkthroughs to verify the program is working and things are where they should be. This is commonly on a monthly basis, though some facilities will do it on a weekly basis at first or when they're launching a new program. Using the checklist, the verifier records observations, notes what is wrong without assigning blame, fixes quick things (after recording them), and maybe takes a few pictures. Many facilities will combine this walkthrough with other existing walkthroughs (such as for safety or quality) to save time.

Identify opportunities for improvement

After the walkthrough is complete, the checklist is used to add items to the Corrective and Preventative Action list for later correction and then it is retained (scanned, filed, etc.) for later analysis. At the end of the year the SP2 Team can look through a year of walkthrough checklists for recurring issues that can either be a new target or a stronger preventative action.

Improve the checklist

Finally, the checklist should be edited and added to over time. If a new improvement project is launched that requires equipment settings to be a certain way, that can be added to the checklist. If a preventative action is needed for an issue as part of Corrective and Preventative Actions, a new checklist item can be added (to catch a condition before it causes waste). When a recycling vendor provides feedback about contamination materials in the recycling, a new item can be added to check for those contaminants in the recycling bins. The goal is to avoid having dozens of independent checks of the sustainability program. Instead, do one walkthrough to check them all.

Examples

ABC Mattress has each member of their SP2 Team develop the checklist for the area of the operation they are most familiar with. Then, each month, each member reviews another's operation, using that operation's checklist. Over the year, members rotate checking each operation so that by the end of the cycle they've seen every part of the plant. The goal is to have fresh eyes every month, to make sure that no one is checking their own work, and to have members learn about different parts of the operation for cross training.

XYZ Sleep Products decided to develop their checklists by dividing their SP2 Team into three-member groups who each walk through an area to cooperatively create the initial checklists. Then each month, one member of the SP2 Team takes a morning to check the entire facility. Their goal is to help their employees see the operation as a whole and learn how different processes interconnect.

How To Do It

The best way to start is to walk through your facility with a clipboard, a notepad, and a pencil. Each time you enter a new section of the facility start a new page. On the page write the things that should be checked monthly to ensure the smooth operation of the sustainability program. Here are a couple of guiding questions:

- What in this area is necessary for waste reduction and recycling to succeed? What does "right" look like?
- What are the steps taken in this area to save energy? How would I verify them?
- What in this area can potentially waste water? What should I look for?

Then move to the next area, start a new page, and repeat. Sometimes it's helpful to sketch a quick map or diagram. Take a few pictures and create a profile of what "right" looks like so that others can easily and quickly verify.

When you are done put your hand written notes in an electronic format such as a document or spreadsheet. If you like, you can use the SP2 System Verification Template. The goal is to make the document light, easy-to-use, and usable by anyone after little training. Don't worry about making it perfect as you can improve it over time. Decide and record where forms will be stored so that they can be reviewed at the end of the year or whenever you need to identify trends.

Then schedule when the walkthrough will be conducted, how often, and who will do it. Putting it on the calendar helps to make sure it gets done.

When it is time to conduct the walkthrough print out the sheet or save a new copy on a tablet and walk through the facility, verifying things are in place, making notes when they're not, and fixing quick gaps. Then take the notes back and enter anything that was not already fixed into the Corrective and Preventative Action list for later correction.

Gap Analysis Questions

- Do we maintain a checklist of sustainability checks to verify periodically?
- Do we complete walkthroughs to verify sustainability programs are in place and working?
- Do we review the results of those walkthroughs to look for patterns?
- Do findings during walkthroughs get entered into Corrective and Preventative Actions list?

10. CORRECTIVE AND PREVENTATIVE ACTIONS

Requirement

When action items are identified via walkthroughs, improvement projects, or accepted employee feedback, they must be added to a process to track the needed actions and their completion, called the Corrective and Preventative Actions (CAPA) process. Corrective actions correct the immediate problem and preventative actions take steps to prevent the problem from recurring. This list of actions should be periodically reviewed to confirm that they are followed through to completion.

Description

While the purpose of Program Verification is to confirm the program is working as designed, it will also identify when things go wrong in your sustainability program. The Corrective and Preventative Actions (CAPA) list tracks the actions needed to fix problems with the program. The CAPA list should record enough information to serve three purposes:

1) Completion: Making sure the actions are completed and "don't fall through the cracks."

2) Prevention: Preventing problems from reoccurring.

3) Learning: Creating a record of fixes so that trends can be spotted and lessons learned.

To accomplish these three goals, there are several pieces of information that are recorded for each task (usually in a table or spreadsheet):

- **Problem:** The problem to be fixed.
- **Action:** The action required to fix the identified problem.
- **Location:** The work station or location where action is needed.
- **Corrective or Preventative:** Whether the action is needed to correct a problem or to prevent issues from reoccurring in the future (more detail on this below).
- **Source:** How the need for action was identified (e.g. walkthrough, employee suggestion, quality audit, etc.).
- **Date Identified:** The date that the action was identified and added to this list.
- **Responsible Person:** The person responsible for completing the action.
- **Date Completed:** The date the action was completed.
- **Completion Notes:** Details describing the action taken and its results. Notes can also be added later as needed.

What to Record

Tasks that go on the list are things that can't be done immediately or those that require a significant effort to fix and that you would like to prevent from reoccurring. This is often described as the "2 Minute Rule" – any task that can be completed in 2 minutes or less doesn't need to be added to the list. Longer tasks should be recorded, even if already completed, so that the CAPA List can show a trend if the same task is happening frequently. Repeatedly correcting the same problem isn't a good use of effort; instead, steps should be taken to prevent recurrence.

Corrective vs Preventative

Corrective Actions are actions that correct the immediate problem (sometimes called "short term fixes"), restoring the sustainability program to its proper state. They don't, by themselves, prevent the problem from reoccurring. Preventative Actions are actions that prevent the problem from happening again.

Periodic Review

The last part of making the CAPA List work for your SP2 system is a periodic review. This can be done during SP2 Team Meetings to check the status of fixes and discuss challenges. Sometimes the review becomes part of other existing processes, such as a facility maintenance work order system or a lean production sustaining process. However the periodic review is done, the key is to frequently review the CAPA list so that fixes to the program don't rely on memory.

On a less frequent basis (often quarterly or every 6 months), the list of completed actions should be reviewed to look for trends, recurring actions, and other lessons learned. This is especially helpful during annual target setting to discover preventative measures that might require a larger time or monetary investment.

Examples

ABC Mattress decides the simplest way to maintain their CAPA List is by printing out copies of a blank table with a column for each piece of information they need to track, putting it on a clipboard with a pen attached, and hanging it on the sustainability progress board on the plant floor. When a new need is discovered, the action is added to the list and updates are made on this clipboard. During each meeting, a member of the SP2 Team reviews the clipboard to make updates and additions. As sheets are completed, they are scanned and stored on the team's share folder, and new blank sheets are added.

Alternatively, XYZ Sleep Products decides to use a spreadsheet because their team is already using spreadsheets for tracking quality deficiencies. They start with their quality spreadsheet and change the columns to track what's needed for the CAPA List. They set up the sheet with sorting and conditional formatting to highlight actions that are incomplete and more than 14 days old. To do periodic reviews, they sort by location and scan by key words.

What to Record

While doing a program verification walkthrough, an SP2 team member finds a paper recycling bin where the sorting label has been turned around to face the wall instead of the work station. As a result, a large number of plastic bags have been thrown into it. The SP2 team member turns the bin around so the label is visible (taking about 15 seconds) and then sorts through the container, removing plastic bags (taking about 5 minutes). When they finish their walkthrough, they add their findings to the CAPA List. Using the "2 Minute Rule", they would not add turning the container around since it took less than 2 minutes to fix, unless they've found this to be a frequent problem that requires more preventative action. However, they would add sorting the plastic bags out of the container (even though the task is already complete), so that the CAPA List provides a record of time spent and can be used to spot recurring trends that suggest that preventative actions aren't working.

Corrective vs Preventative

When reviewing the CAPA List for trends, the SP2 Team Lead sees that there is a repeated corrective task to find a missing paper recycling bin in the sewing area. It's been corrected each time within a day, but it keeps happening, consuming time and disrupting the work flow. Finding the bin and returning it to the correct location is a Corrective Action. Reviewing the notes in the CAPA List, they see that the missing bin has been found repeatedly in the shipping area. After doing a little investigating, they learn that the shipping area generates waste paper (shipping manifests), but doesn't have a recycling bin. Members of the shipping team have gotten tired of walking to another station to put the material in the right bin, and occasionally decided to drag the recycling bin back to the printer station. The SP2 Team Lead sees the opportunity for recycling to support the work process by adding a second container so that sewing and shipping each have their own container near the location where the waste is generated. This is a Preventative Action because it prevents the original problem from reoccurring.

Periodic Review

As the first item on the agenda for the facility's weekly SP2 team meeting, the team goes through the CAPA List to mark completions on the list, suggest additions to the list, assign responsible persons for new actions, and discuss any challenges with completing actions. Twice a year, the SP2 Team Lead looks through the completed CAPA List and scans it for any recurring actions that may need more robust preventative actions.

How To Do It

There is no one right way to track a CAPA List. It is often done using a spreadsheet. SP2 has developed a template that you can access on the SP2 Member Portal. Whatever method you select, be sure that it includes all of the information in the list at the beginning of this section. Feel free to add additional items that your facility uses for other tracking purposes.

Once you've got your list format down, it's time to gather actions for it. The most common source of new actions are the Program Verification walkthroughs. Employee comments can be another good source and a way of building engagement by demonstrating that employee comments are taken seriously.

Next, set up a recurring time to review the list of tasks to see if they've been completed. This can be a weekly 30 minute appointment on the calendar for a designated SP2 team member or an agenda item at your SP2 team meetings.

Finally, the SP2 Team Lead should schedule a reminder to review the list of completed items every 3-6 months to look for trends, lessons, and opportunities.

Gap Analysis Questions

- Do we maintain a list of problems with our sustainability program?
- Does the list include both ways to immediately correct the problem and ways to prevent the problem from occurring again?
- Do we periodically review our list to make sure actions get completed?

11. PROGRAM RESILIENCE

Requirement

The facility must maintain a written plan for how to respond to unexpected disruptions to the sustainability program, such as delays in recyclable pickups or broken water mains. The disruptions in the plan should include anything that is reasonably anticipated or that has occurred in the past at the facility, with a minimum of three scenarios. Personnel necessary to implement the plan should be identified and trained to respond (listed as training needs under Employee Awareness and Engagement), and they should have ready access to the written plan during a disruption.

Description

Rather than waiting for something to go wrong to begin solving it, this element requires the facility to identify ways their program could stop working and make a plan for what to do if things go wrong. When starting out, the point of the program resilience exercise is not to anticipate every possible problem, but rather to establish a practice of building knowledge of potential problems and solutions over time. Initial SP2 certification requires three program resilience scenarios. As the SP2 system is operated over the years, additional scenarios can be added as new incidents occur.

The goal of this element is to give the sustainability program the ability to weather shocks and incidents with minimal disruption. To do this, a resilience plan needs several pieces of information

- **Scenario:** What situation are we planning for?
- **Past Occurrences:** The list of dates when this has occurred in the past (if it has).
- **Lessons Learned:** What did you learn from past occurrences (if any have happened)?
- **Action Plan:** What should you do if this situation happens? What are the steps? What is "Plan B"?
- **Equipment Needed:** Does the action plan require any particular equipment? How much? Where is it stored?
- **Key Personnel:** What are the key positions that have a role in the response? (be sure to list title and name since people may rotate through a given position).

Examples

ABC Mattress has a few scenarios on their Program Resilience list. A new problem arises when a compressed air line gets damaged while the maintenance tech is on vacation. There are no other staff trained to shut off the line or the air compressor, resulting in a very high electricity bill and a disruption to production. After calling their maintenance tech on vacation to figure out how to shut off the system, they add new scenario to their Program Resilience list. In it they include a map of the facility with key shut-off points for the main compressed air lines and the compressor itself. They also add a phone number of a company that can do quick repairs on the system. If the same problem occurs again, they'll be able to react more quickly, saving energy and production time.

XYZ Sleep Products hasn't had a baled plastic pickup in two weeks. When they call their recycler, they learn that the company has gone out of business. Fortunately, they have a page in their Program Resilience list for a disruption to recycling pickups. The plan indicates a location in the facility that can be used for overflow storage of bales and a list of trained forklift operators who can move the bales to the new location. The plan also lists some additional recycling companies that could provide pickups, so they start calling down the list to see who can accept the material. They find a company that can come out, but not for another three weeks.

By that time, their overflow storage space will be out of room, so they explore using free-standing floor stacks in the back of the warehouse. Their Safety team identifies the maximum heights that floor stacks can safety reach, so they record these and mark the walls with decals to give a visual control for safe storage until the new recycler can pick it up. Then they go back to their Program Resilience plan and add their new lessons learned about maximum safe floor stack heights so they can respond even more efficiently to any future recycling disruptions.

How To Do It

The first step is to ask people who have been at the facility for a while what's gone wrong in the past. From the incidents they recall, identify which scenarios have had an impact on waste, energy, or water. If you've had the good fortune of not having any past incidents, then imagine what could go wrong in your program.

If you're not sure which scenarios to start with, here are three that are common in the industry:

1) **Interruption in Recycling Pickups:** For whatever reason, your normal recycling company has stopped their regular pickups of your material. This could be due to going out of business, a natural disaster, or a shift in the market for a particular commodity. What will you do with extra recyclables after your container fills? Can you store it somewhere else? Do you have a backup recycler identified? Will you have to dispose of the material? Are there other considerations such as fire code or safety requirements that affect your decisions?

2) **Broken Water Pipe:** A water pipe has broken in your facility (such as a main, a fire riser, or other large pipe) and large amounts of water are going to waste, maybe even causing damage to your facility. How do you shut the water off? Does it require special access or a special tool? Who knows how to do it? What if they're out sick that day? Who do you call to get the pipe repaired quickly?

3) **Broken Compressed Air System:** Part of the compressed air system has broken in your facility (such as a head, valve, joint, or line) and it is leaking large amounts of compressed air, causing the compressor to run non-stop, wasting electricity. How do you shut off the compressor? Does it require any special tool, instructions, key, safety equipment, or access? Can you isolate a single compressed air line so that you don't have to shut off the whole system? Who knows how to do this safely? Who can you call to get it repaired quickly?

At the beginning of developing your SP2 system, it is not necessary to determine every possible scenario. Start with at least three, then add to the list over time.

Some facilities find it helpful to combine these scenarios with the scenarios of their Emergency Action Plan so they have one folder advising what to do when anything goes wrong. Others prefer to keep their compliance-related materials separate from beyond-compliance activities like SP2. Whatever you decide to do, make sure that people know where the plan is and can access it during an emergency (including during a power outage – meaning that there should be a hard-copy available).

Then review the plan after each use to add lessons learned and updates. When something goes wrong that is not in the plan, add a new scenario. Finally, review the whole plan once per year to make sure that it is up-to-date with names, phone numbers, and processes.

Gap Analysis Questions

- Have we identified likely scenarios that would impact our sustainability program?
- Do we have a plan for what to do when things go wrong?
- Do we review it at least once per year?