



Kaizen Event Preparation

Monday, April 19 5:40 a.m. Conference Room

“Let’s start by reviewing our overall lean manufacturing implementation strategy,” Roger said. “Here are the steps:

1. Teach everyone 5S and start implementing it everywhere in the plant.
2. Choose a product for a model line, to serve as an example or pattern for the rest of our products.
3. Implement work cells, continuous one-piece flow, and standard work in final assembly.

4. Build work cells in component fabrication and use kanban to connect them to final assembly. Reduce setup time and batch sizes and implement preventive maintenance.
5. Apply everything we learned on our first model product line to all of our other products.

"We established our overall goals of 90 percent lead time reduction, 5,000 defects per million products produced, and 20 percent productivity improvements for the next two years," Roger said. "I'm leading the third of 10 scheduled 5S implementation sessions starting at 7:00 a.m., which is why we are meeting so early today. As you all have heard, Evanson made a big wind-up alarm clock sale for us, so that is where we'll focus."

"Great," said Sam. "So we'll use a kaizen event to implement work cells, continuous one-piece flow, and standard work in final assembly, right?"

"Right," said Roger.

"How do we start?" asked Kim.

"With preparation," said Roger. "Preparation is critical for a successful kaizen event. The first thing we need to do is define the scope of the kaizen event. Where does this event start and where does it end?"

"I would say it starts when all the component parts

have been delivered to assembly, and ends when the product is packaged and ready for delivery to finished goods inventory," said Kim.

"Good," said Roger. "Next we must choose a team leader for the kaizen event. We need a person from outside the area we are improving so that he or she will bring fresh thinking to our improvement efforts. The leader also must know how to be a coach, how to get other people to think of improvements and implement them. We also need to choose a leader-in-training for this event for two reasons: first, we need more leaders to run more events, and second, the leader often needs help coordinating all the activities during an event. I will be the first team leader. Our first leader-in-training will be Tom."

"But I don't have the experience, and I don't understand this stuff very well," Tom said.

"You'll learn," said Roger. "Lean manufacturing is the strategy we're using to turn this company around, and you must understand and actively lead this effort with me*."

* Joseph C. Day, CEO of Freudenberg-NOK, spent 35 percent of his time working with kaizen teams during the first two years of lean manufacturing implementation. As a result, his company increased sales in four years from \$200 million to \$600 million with record profits. They have held 2,500 kaizen events in 15 manufacturing plants and

Tom shrugged and nodded weakly.

“Next,” continued Roger, “the team leaders must study and understand the process in order to determine achievable breakthrough goals for the event in terms of quality, cost, and delivery. By applying my lean manufacturing experience to a process, I can usually picture how to improve lead time by up to 90 percent, productivity up to 50 percent, and quality up to 75 percent. Those are breakthrough goals, but they are achievable. You will develop the same kind of judgment after you’ve been through a number of kaizen events.”

“How do you study an area?” asked Kim.

“I make products,” said Roger. “I like to start at the beginning and have the operators teach me each operation. Then I have them watch me do it. Doing the job yourself is the only way to learn the details. Of course, I also look at the levels of inventory, the way the equipment and tables are arranged, the volume of product, the causes of defects, and the attitudes and skills of the people in the area. I don’t have a 5S implementation session tomorrow, so Tom and I will spend the entire day learning about the area. We’ll meet again as a management team tomorrow afternoon

involved 90 percent of their 3,500 associates. From *Becoming Lean*, by Jeffrey K. Liker.

to discuss the goals.”

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Tuesday, April 20 4:45 p.m. Conference Room

“Roger and I made lots of products today,” said Tom, “and we studied the wind-up alarm clock assembly area. Based on Roger’s lean manufacturing experience, we think the following goals are achievable:

- Reduce work-in-process inventory by 80 percent
- Reduce lead time (from fabricated parts to packaged product) by 90 percent
- Reduce defects by 50 percent
- Improve productivity by 30 percent

“We can accomplish these goals by implementing work cells, continuous one-piece flow, and standard work,” Tom concluded.

“Good goals,” said Roger. “Next we need to choose a week for the event. I suggest we start on Monday, April 26, which will give us time to finish our preparations.”

“In the next few days,” he continued, “we will need

to meet with all the employees in the area to explain the kaizen event goals, what we will be doing during the kaizen week, and ask for their ideas for improvement.”

“I like that idea,” said Maria. “We’ll collect their ideas and give them to the kaizen team to implement. That way, the people not on the kaizen team will have more buy-in to the changes in their area.”

“Next, we will need to choose the kaizen team members,” said Roger. “We’ve already got our team leader and team leader-in-training. A kaizen team should have five to 15 members, and approximately 70 percent of them should be non-managers and people from the shop floor.”

“Why?” asked Maria.

“Because we want to use kaizen events as a way to give our shop floor folks a chance to make changes,” said Roger. “When you get too many salaried people together they talk too much and the hourly employees get discouraged and stop participating. There are a lot more brains on the shop floor than in the front office, and we need to tap into them. The salaried people on the kaizen team will be coaches, not thinkers and implementers.”

“That makes sense,” said Maria.

“Let’s start by assuming our first event will have 12

people," said Roger. "Counting Tom and me, we have room for at most two more salaried team members, and they should come from the management team to get you involved early. As salaried team members, I will expect you to serve as coaches to keep the sub-teams on track during the event, in addition to providing ideas and enthusiasm."

"I'd love to volunteer, but I'm too busy defending us against our creditors," said Maria.

"I understand," said Roger. "Sam, you should be one of the team members."

"Great," said Sam.

"Paul," said Roger, "as quality manager you should be on this team. The work cells will be taking responsibility for their own quality control."

"I don't think I'd be of much help," said Paul, his arms crossed in front of him. "I don't agree with this lean stuff. I haven't from the start, and you haven't listened to my objections."

Roger stared at him and paused. "You made a commitment to help us implement lean manufacturing when you signed the paper in my office. In order for you to stay with this company, you will need to suppress your disagreement from this moment forward and commit yourself to supporting this effort with every word you speak and action you take," Roger

finally said. "Will you do that?"

"I have a right to my opinion," Paul snapped back.

"The decision to implement lean manufacturing at this plant was made when you hired me," said Roger. "I will tolerate no opposition to that decision from any employee of this company."

"I didn't vote to hire you," Paul responded. "And that's not a very nice way to talk."

"Nice isn't my goal."

"I thought you were supposed to be a big 'team' guy," said Paul. "People on teams are supposed to be nice to each other."

"People on teams are supposed to share a common goal," said Roger. "If you don't share our goal of implementing lean manufacturing, you can't be on the team."

Paul stood up. "These lean ideas will sink this company," he said. "And Roy feels the same way."

Roy turned to look at Paul, clearly angry, but silent.

"Will everyone but Paul please leave the room?" Roger asked.

They all rose and silently left the room. Roger closed the door behind them.

"Paul," said Roger, "you're fired."

"I figured that."

* * *

“Paul has chosen to leave the company,” announced Roger. “Roy, as engineering manager, you would be an excellent choice for our last salaried spot on the kaizen team.”

“As Paul said,” Roy responded, “I’m not completely comfortable with lean manufacturing. It’s the opposite of what I’ve believed for 30 years. But I’m willing to swallow my disagreement and do my best to help.”

“That’s all I ask,” said Roger. “We need to fill the remaining eight slots with non-managers and people from the shop floor. It is often important to ensure maintenance support for a kaizen event, and because we will be moving equipment and electrical drops, we should have a maintenance technician as a team member. It is also helpful to involve a supplier or customer on the team, so we will invite one or the other for this event.”

“I know a buyer I’d like to invite,” said Evanson. “I told him what we’re doing to improve, and he’d be interested in participating.”

“Invite him,” said Roger. “We have six spots left and they should all go to shop floor employees.”

“Should we ask for volunteers?” asked Kim.

“No,” said Roger. “Not for the first kaizen event. In

every department in a plant, there are those hourly employees who influence their peers. Their opinions tend to become the opinions of most everyone else. We will identify the 'opinion-leaders' and ask them to be on the team. A properly managed kaizen event is a wonderful experience for most hourly employees, and we want people who will spread the word for us. We'll choose four people from wind-up assembly and two people from the departments that fabricate parts for them."

"I know who most of the opinion-leaders are," said Kim.

"Me too," said Sam.

"I suggest you two put a list together," said Roger, "and run it by Roy too. Then we'll ask them to join the team. You must understand that team members are dedicated to the kaizen team for the entire week. Get someone to handle your regular job for the week, get rid of your pager, and tell everyone else to pretend you're on vacation."

"I assume that alarm clock production will be interrupted for part of the week," noted Kim. "I'll look at our inventory and ensure that we build enough product before the event to enable a week-long shut down."

"There will be some disruption to the schedule as

we move equipment and experiment with different layouts," said Roger. "Plan on half the normal production from that area. In addition, I would like you to take on the role of acting manufacturing manager in addition to your duties in production control. Can you handle it?"

"I'll do it," said Kim.

"Roger," said Roy, "you believe we will get an immediate productivity improvement from this first event, right?"

"Yes," said Roger, "at least 20 percent."

"There are 30 people assigned to wind-up assembly," continued Roy. "Let's say during the event we reduce that by six. You promised no more layoffs, so do you have a plan to reassign employees freed up due to productivity improvements?"

"Eventually," explained Roger, "they will be needed for production because we are going to grow, right Evanson?"

"Sure boss," said Evanson. "If you give me better quality, cost and delivery, I can sell as many clocks as you make."

"Once they've had time to cross train," continued Roger, "I will take the best six people out of wind-up assembly and assign them to our brand new 'kaizen department', reporting directly to me. They will work

on improvement projects throughout the plant.”

“Is there anything else we need to do to prepare for our first kaizen event?” asked Roy.

“Just a few more details,” said Roger. “We need to have a carpenter available to build new tables and storage racks during the event.”

“I know the perfect person,” said Roy. “She’s a quick worker.”

“Fine,” said Roger. “Make sure she’s available. We also need to identify administrative support for the team. We’ll use Tom’s executive assistant, since he has nothing for her to do yet. She will order t-shirts and plaques as recognition for the team members, arrange for lunch to be brought in each day, reserve a conference room near the shop floor for training and discussion, and make sure we have supplies: flip charts, markers, pens, pencils, scratch paper, stopwatches, rulers, calculators, tape, scissors, tables and chairs for everyone, notebook computer, LCD projector, video camera with tripod, blank tapes, television and VCR, name tags, clipboards, masking tape, sticky notes, and tape measure.”

“Sounds like you’ve done a few of these kaizen events,” said Tom. “Anything else we need to do?”

“Two more things,” said Roger. “We need to get approval for overtime to be used during the week as

necessary. If we manage the event correctly, we won't need much of it. I hereby approve the overtime. Finally, dress casually for the event. You will be working on the shop floor and getting dirty. No suits or ties."

"How often will we do kaizen events?" asked Roy.

"Given the circumstances, we need to plan on doing another event as soon as this one is finished, and we'll start planning that one right now," said Roger. "Tom, you'll be the leader of the next event. It will be your responsibility to plan it. I will coach you."

"Where is this next event going to be?" asked Tom.

"Work with Kim and figure out which fabricated wind-up alarm clock component has the most quality problems and the longest lead time," said Roger. "That's the one on which we'll focus."

CHAPTER SUMMARY

Pre-Event Preparation Checklist

- ✓ Define the scope
- ✓ Choose a team leader
- ✓ Choose a team leader-in-training
- ✓ Study the process and determine achievable breakthrough goals
- ✓ Choose a week for the event
- ✓ Meet with all the employees in the area to explain the kaizen event goals, explain what the team will be doing during the kaizen week, and ask for their improvement ideas
- ✓ Choose eight to 15 members. About 70 percent of them should be non-managers and people from the shop floor
- ✓ Ensure maintenance support
- ✓ Involve a supplier and/or a customer
- ✓ Identify the “opinion-leaders” and ask them to be on the team
- ✓ Ensure that team members are dedicated to the kaizen team for the entire week
- ✓ Build product before the event to enable a week-long shut down
- ✓ Plan to reassign employees freed up due to

productivity improvements

- ✓ Have a carpenter available to build new tables and storage units
- ✓ Identify administrative support for the team
- ✓ Order t-shirts and plaques as recognition for the team members
- ✓ Arrange for lunch to be brought in each day
- ✓ Reserve a conference room near the shop floor for training and discussion
- ✓ Get approval for overtime
- ✓ Dress casually for the event
- ✓ Gather supplies: flip charts, markers, pens, pencils, scratch paper, stopwatches, rulers, calculators, tape, scissors, tables and chairs for everyone, notebook computer, LCD projector, video camera with tripod, blank tapes, television and VCR, name tags, clipboards, masking tape, sticky notes, and tape measure

It's heady and a little frightening to know that the boss has put part of his or her reputation into the subordinates' hands. It brings out the best in everyone. They aren't just getting the job done. They're making sure that the trust that's been placed in them is rewarded.

- Peopleware, by DeMarco & Lister

