

Continuous improvement on a Budget

Continuous improvement is a broad term used frequently in today's business world. Most companies strive for continual improvements in their processes but many come up short when it comes to actually making sustainable gains. Outside consultants typically do a very good job of bringing the continuous improvement process into a facility and there are times when their services should be employed. The subject of this paper on the other hand attempts to expose the various steps involved, should a company choose to conduct such an event in house using their own personnel. Nearly every company in the world stands to benefit from a well focused continuous improvement event utilizing an in-house facilitator.



Improvement events can be tailored to nearly any situation ranging from setup reduction to PM/PdM development. I strongly feel that every company possesses at least one individual capable of conducting such an event; all they need is a little coaching and some general guidelines to walk them through the process. It is truly amazing what a group of individuals can accomplish when brought together in this type of setting. In today's tough economic situation conducting in house continuous improvements events are the smart economic choice. The following is a breakdown of the steps that need to be considered when setting up an event.

1) Facilitator Selection:

The very first step in the process involves selecting a facilitator to conduct the events. This individual should fit the following profile:

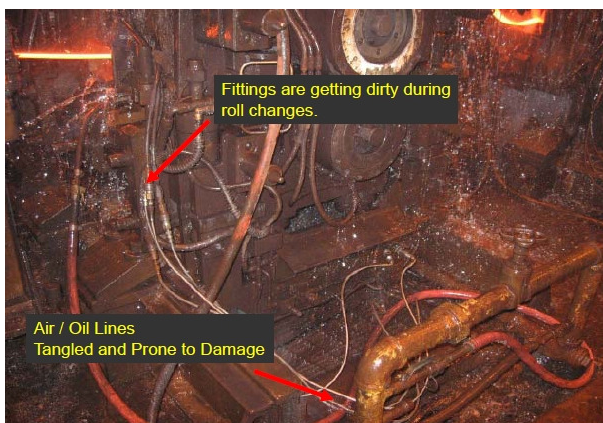
- Leadership ability: Natural leadership ability is an extremely important trait and brings with it many benefits. Comfortable public speaking, decisive reasoning and confidence, spread enthusiasm and drive to the group.
- Well liked and respected among peers: The individual facilitating such an event will achieve results much quicker if personality conflicts are avoided. Open mindedness, honesty and good listening skills are typically traits that are respected by everyone.
- Computer skills: Good basic computer skills expedite the planning and execution of a continuous improvement event. Power Point, Excel and digital photo management are skills necessary to efficiently carry out an event. A little time invested in training in these areas will serve the whole process well.

- **Removed from daily duties:** If at all possible the facilitator should be removed from her/his normal day to day duties in order to allow complete focus on the event. This should be considered their job at least up until the point of completion and initial follow up. This sometimes creates strains within the organization, but the sacrifices made will pay off in the long run. The action of dedicating an individual to such a position will instill a sense of worth and importance towards continuous improvement and ultimately flows down through the organization and will reinforce everyone's efforts.
- **Directly supported by a member of upper management:** The facilitator needs the support of someone within the organization capable of executing necessary items during the process. There is nothing more frustrating than a group of individuals pouring their hearts and souls into a project only to be shot down by the upper management hierarchy.

2) Pre event planning:

Good planning for a continuous improvement event is essential. Shortcuts here will hinder a successful outcome.

- **Assemble technical information:** This could be a broad area depending on what the event will focus on. For example if the focus is on setting up a PM schedule for a certain machine, it will require pulling all the prints and technical manuals for that particular equipment system. The facilitator may need to enlist the help of several departments such as engineering and maintenance. The teams will use this information during the event to reveal original system designs and specifications. It is amazing what a group of curious individuals can uncover when given access to an original equipment operating manual.
- **Interview all persons affected:** The facilitator should spend some time on the floor speaking with the employees in the target area. One by one, give them a general idea of what the upcoming event will focus on and ask their opinion. Be prepared to write everything down and assure them that even if they are not chosen to participate, their ideas and comments will be heard. This critical pre-event step will go a long way to reinforce buy in and follow through from the very people who will ultimately make it happen.



- **Photos and other supporting information:** Take plenty of digital photographs of the affected area or equipment. You will introduce these photos during the early stages of the event in your rough draft Power Point. There is some kind of special connection between the focus group and a familiar picture that always generates lively discussion. Pictures also provide the advantage of seeing things from a slightly different perspective not normally noticed during a normal workday. Other

supporting information could include supply and parts purchase history, manpower logs and safety records.

- Prepare a rough draft Power Point outline: As mentioned earlier, a photo tour of the affected area makes a good basis to kick off the event. Prepare a few introductory slides that briefly state the event focus and some basic goals. Be careful not to impose any personal pre-conceived ideas or specific solutions. Let the group work through the process and produce a team generated list of possible solutions. Prepare just enough in this initial presentation to take you through the first stage of problem identification. You will add to the presentation on a progressive basis and expand it as the event unfolds.
- Arrange the small details: Arrange for a space to conduct the continuous improvement event. A separate room away from the noise and confusion of the manufacturing floor is a must. Plentiful white boards and free standing flip charts are also needed to capture ideas. These battle boards provide a silent driving force throughout the event, giving the group necessary input which motivates the creative thinking process. If your facility lacks a formal training room you may have to improvise, just be sure the group will be able to work uninterrupted. Remote training sites do not work well for these types of events as frequent trips to the floor for observations are a necessity. You should also provide the participants tablets, pens, markers etc... which further reinforces the creativity process.
- Select the participants and invite them. You will most likely select a few must have individuals and it would be to your advantage to schedule the event around vacations and possible manufacturing deadlines. Settle on a date and advertise the upcoming event throughout the facility.

3) Getting the right people involved:



One of the surest bets for a successful outcome to any continuous improvement event is selecting the right people to participate. Avoid the all inclusive everyone will participate at some point” mentality. The key here is a good mix of open minded thinkers and doer’s who are willing to participate. Your best and simplest ideas will come from the regular department workers who work in the affected area day in and day out. Lean heavy on these types.

Management members are sometimes good candidates but be careful to use them sparingly. Often time their presence may actually hinder the process as some of the team members may fear retribution for “telling it like it is.” One of the critical components in the process is getting all the facts out in the open, and quite often these are things that management doesn’t

want to hear about. If a management member is selected, be sure to choose one that is fairly neutral to the day to day operations of the department. One should also consider a member or two completely removed from the target area and chosen only because of his or her clear thinking and common sense approach. Another set of eyes from a different department often reveals things that blind the day to day department worker.

Last but not least include at least one naysayer. Every organization has a few of these and conversion of even one within the company will go along way to improving the rest of them. He or she will almost always state things like that will never work or we already tried that and it failed. When an individual such as this gets caught up in the positive team environment around them, they tend to open their mind and usually produce some of the best ideas.

4) Class size:

A good class size is somewhere between nine and twelve members not counting the facilitator. When the group is broken down, individual teams of three each seem to be a good comfortable number. These small teams will maximize the overall productivity of the group. If the target problem is extremely large you can create a larger class size but it can be difficult to manage. Consider a co-facilitator if the class size exceeds twelve people.

5) The main event:

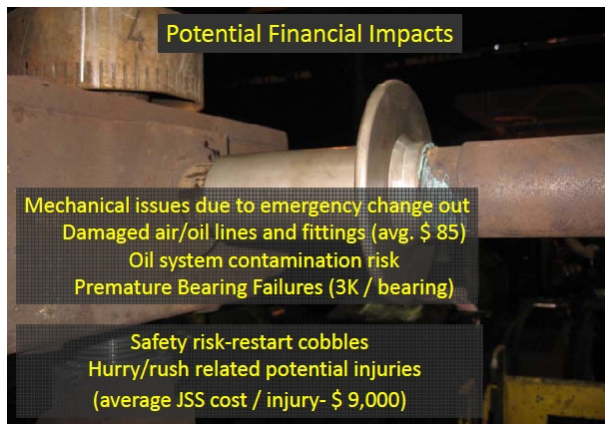
The actual event itself can be broken down into specific steps. I will attempt to illustrate a typical week long event on a daily basis.

Day 1: 5 hours-brainstorming

2 hours-observations

1 hour-breaks/ other

Begin the session by having everyone in the room introduce themselves and share their number of years with the company. People love to talk about themselves and it makes a great icebreaker. Allow ten to fifteen minutes of small talk and introductions. Once everyone is relaxed and comfortable show the previously prepared Power Point presentation outlining the issue at hand. Use this opportunity to get the cards out on the table so to speak and identify as many issues as possible. As you work through the initial problem identification stage, be prepared to capture as many thoughts as possible. Fill the white boards and flip charts with ideas and comments as they emit from the group. Capture everything. Just the fact that the facilitator writes it on the board, immediately tags that person's idea as important, whether or not it actually is. It is usually best to spend about half of the first day on initial brainstorming, but take longer if it is needed.



By afternoon of day one, you should have some logical targets established and are now ready to break the group into teams and delegate specific assignments for each. Team selection is a process of best diversifying members according to the focus. For instance if one of the identified problems is repeated breakdown of a certain piece of equipment, you could assign an operator, a mechanic and electrician to that team. Use your best judgment when dividing up the group into teams, keeping in mind internal personality conflicts etc... Team assignments need to be guided by the facilitator and the who wants to do what? question should only be used as a last resort. It is helpful to ask for a volunteer team leader from each team. This “title” establishes a specific person in charge so to speak and will prove valuable throughout the event. More importantly it creates a go to during the critical follow up phase. Let nature take its course here as the cream usually rises to the top. The facilitator will not be specific to any one team but instead will bounce from group to group offering assistance as needed.

Once you have the teams set, send them to the floor for day one observations. The team should use this time to observe actual conditions, take notes and make sketches. The facilitator can move from team to team taking pictures and also making notes on what each team has found thus far. Schedule a brief reconvene meeting at the end of the day for the whole group. Lay out the agenda for day two and congratulate the group for their rightly begun, halfway done accomplishment! Once the group has left for the day the facilitator should add photos from the day one observation to the initial Power Point. This will be your starting point for the day two morning session.

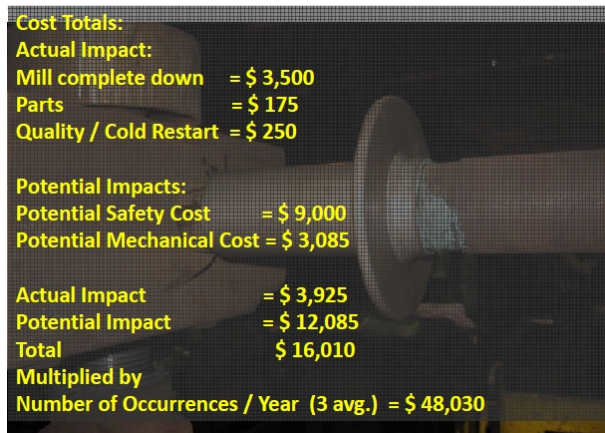
Day 2: 2 hours-issue discuss/action plan formation

5 hours- action plan execution

1 hour-breaks/ other

Begin each day with a group session to discuss, team by team, the problems, issues and action plans for each. Start day two off by showing the pictures from the afternoon before. Discuss all of the issues at hand and start steering each team towards a focus of a couple of specific problems. Spend a couple of hours on this process with the goal in mind of establishing action plans for each team. Established action plans should include things that can be done by the teams right away. These “quick hit” items help spread enthusiasm within the teams and also to the rest of the workers on the floor. Some common items usually include an area organization and cleaning (5S), minor repairs to equipment and replacing a few minor items used daily by the department. I remember clearly one of the groups I was involved with identified a problem with poor lighting at a work station. For whatever reason this problem had persisted for months and the personnel in that area had given up complaining about it. We sent someone down to the home improvement store to purchase a

new fixture and the team installed it in less than ten minutes. Judging by the reactions and comments from the employees, you would have thought they just received a raise! The team members were heroes and the continuous improvement initiative within the facility just got a shot in the arm, all for less than a twenty dollar bill at the hardware store!



Cost Totals:	
Actual Impact:	
Mill complete down	= \$ 3,500
Parts	= \$ 175
Quality / Cold Restart	= \$ 250
Potential Impacts:	
Potential Safety Cost	= \$ 9,000
Potential Mechanical Cost	= \$ 3,085
Actual Impact	
	= \$ 3,925
Potential Impact	
	= \$ 12,085
Total	\$ 16,010
Multiplied by	
Number of Occurrences / Year (3 avg.)	= \$ 48,030

The facilitator should capture with photos anything the teams accomplished throughout the day along with lending the usual support and encouragement. End the day with a scheduled group meeting and task each team for a brief update as to their progress. Lay out the agenda for day three and after the group has left for the day, update the Power Point to reflect the progress.

It would be a good idea at this point to begin putting together a draft Power Point for a final presentation. This end of event presentation will be given by the group to members of management and should be an informative recap of the week. I have found that a problem/solution format works best wherein the presentation illustrates a found problem and the potential solutions as decided by the group. This end of week celebration is the opportunity for a reward luncheon and the chance to show management just what was found and how you plan to fix it. Don't forget to personally invite your audience to the presentation and ask for an RSVP so that you can plan accordingly for the luncheon.

Day 3: 2 hours-issue discuss/action plan formation

5 hours- action plan execution

1 hour-breaks/ other

Day three should begin and end with a group update meeting. The bulk of your mid week time will be spent working on action plans and doing the initial planning work for any long term solutions that may need to be implemented. This is also a good time for the facilitator to get ahead on the week ending presentation. I cannot stress enough the importance of keeping up with your final presentation work. I have personally fell victim to the night before trap and know first hand how overwhelming it can be. The final presentation is the icing on the cake, and glue that make the initiative stick to the wall. Do everything in your power to make it be as perfect as possible.

Day 4: 2 hours-issue discuss/action plans

5 hours- action plan execution

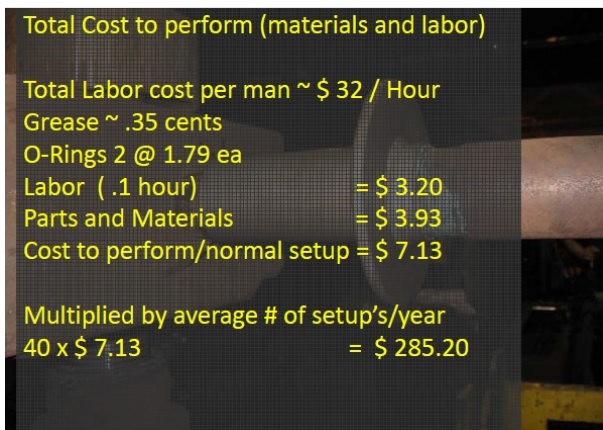
1 hour-breaks/ other



Day four is basically a continuation of the day before with the exception that it is now time to plan for completion. Begin day four with a narrowing focus and priority establishment goal in mind. The group will undoubtedly come up with more action items than time will physically allow to complete. Prioritize the action items moving the immediately achievable to the top of the list. Break the remaining items down into a “most to least” order list according to importance. Assign champions to each remaining project from within the group. Your assigned champion will be the drive to make the initiative happen and the primary point of contact. Don’t panic if the champion assignment process does not go as smoothly as planned. Presentation day is another opportunity to further assign project champions from the presentation audience. Management that is present to view the week ending presentation should be excited by the group’s findings and plans. More time than not they are eager to jump in on a project if specifically asked. Your final presentation will likely conclude with a list of things that the group has set as action/follow up. The timing is perfect to assign an enthusiastic member from your audience.

Day 5: 2-3 hours-action plan wrap up

1-1 1/2 hour- re-group and rehearse
Luncheon and presentation to completion



Finally! The last day has arrived and it’s now time to pull everything together, step back, relax and enjoy the fruits of a hard week’s labor. The morning will begin with quick game plan for last minute to do’s and such. Once the teams hit the floor to finish up, the facilitator should use this time to polish the final presentation. Keep the final Power Point brief but informative with a 30 to 40 slide maximum and designed to fit into a 30-45 minute window. Be sure to schedule a group reconvene about an hour and a half prior to the scheduled lunch for presentation rehearsal. The rehearsal should be a real time run through of the slides and a pre determined team member speaking

about each one. The presentation will lack depth and generate boredom if the facilitator is the only one who explains the week long event and its findings. A time proven method for the presentation usually involves the facilitator presenting the opening comments and the first few slides. Start around the room in a consecutive fashion and pre-assign each individual their slide(s). Encourage them to explain what they are looking at in their own words and stress informality. Assure the shy individuals that if they get stuck and are at loss for words, someone else will jump in and help them out. Discourage the presentation from being dominated by a few outgoing types. The whole group played a part in this event and their participation during the presentation adds the necessary ingredient to solidify the team effort.

6) Event Follow Up:

With the whirlwind of the event now behind you, all that is left to do is to execute the all important follow up. Use your own creativity and method of record keeping to best track project follow ups. Many of the team generated ideas will involve a length of time and quite possibly some capital investment. These things take time to work its way through the facilities organizational system.



One very good method is to dedicate a bulletin board for continuous improvement. Post a description of the intended project along with the conceptual ideas and who the project champions are. Encourage the project champions to update their project posting frequently. Keeping the rest of the workforce informed and involved by way of the postings will spread and grow the continuous improvement initiative within your facility.

Continuous improvement is something that every company should be involved with on a daily basis. It doesn't have to cost a lot of money and the talent and enthusiasm within your facility may surprise you. Hopefully this guide will help you launch your teams into a new world of cost savings, team building and overall better profitability for your organization!

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