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# 10

Components  
of a Successful

# VIBRATION PROGRAM

by Alan Friedman

## Right Processes and Procedures and What Can Be Learned About Reliability on a Silent Meditation Retreat

The *Uptime* series on the 10 components of a successful vibration program continues with this article that focuses on Component #10, the right processes and procedures.

Figure 1: 10 components of a condition monitoring program

<b>1. Right Goals</b>	Having clearly defined and achievable goals that may evolve over time.
<b>2. Right People</b>	Having the right people in the right roles with the right training.
<b>3. Right Leadership</b>	Inspiring continuous improvement.
<b>4. Right Tools</b>	Having the right tools and technology to help reach the goal.
<b>5. Right Understanding</b>	Equipment audits, reliability and criticality audits, FMECA, maintenance strategies, etc.
<b>6. Right Data Collection</b>	Collecting the right data at the right time to detect anomalies, defects or impending failures.
<b>7. Right Analysis</b>	Turning data into defect or fault diagnoses.
<b>8. Right Reporting</b>	Turning data into actionable information and getting that information to those who need it at the right time and in the right format.
<b>9. Right Follow-up and Review</b>	Acting on reports, reviewing and verifying results, benchmarking, auditing and improving, etc.
<b>10. Right Processes and Procedures</b>	Tying together: people, technology, information, decision-making and review.

**Imagine this:** You are starting a new job. You are given a two-hour orientation, followed by about 10 to 20 minutes of hands-on job training conducted by the person you will replace. After that, you are to do your job without speaking to or making eye contact with anyone else. Apart from a few longer term managers, most of the people in the organization are in the same position as you.

**Now imagine** what it would take to make this organization run like clockwork. This is a lesson in process management and reliability.

In addition to my keen interest in vibration analysis, I also have a passion for intensive meditation retreats lasting from 10 days to several months. At an intensive retreat, the goal is to meditate literally every moment of the day, from before opening one's eyes in the morning until one falls asleep meditating in bed. Practitioners keep their eyes pointed down at the ground and move in slow motion like zombies, meditating even while taking care of daily necessities like eating, brushing teeth, showering and using the toilet. It's like walking around all day trying to balance a bowl of water on your head. Meditators also forgo reading, writing, Internet access, phones, or any activity that takes away from meditation. Speaking or making eye contact with others is strongly discouraged. In other words, the retreats are done entirely in silence and without interacting with others.

But at one retreat, an unexpected lesson about reliability and how to run an organization was gained. On this particular retreat, the meditators were expected to work for about an hour a day doing odd jobs to help keep the center running. Jobs ranged from cutting vegetables, washing dishes and mopping floors to cleaning bathrooms, etc. Although this particular retreat had a start and end date, the center runs continuously all year round, with people constantly coming and going. Therefore, it is necessary for people to acclimate quickly to the environment and learn their jobs without disturbing the people already on retreat. Practitioners need to carry out their job tasks and handle any unexpected complications without disturbing their own practice or that of the other meditators. Although there are some more permanent employees at the center or "managers," their jobs are also well-defined and easily passed on to the next person.

After a two-hour orientation and a ten minute job training, I was able to begin my retreat and do my job sanitizing dishes for two months without ever having to interact with another person or ask a question, even when some unforeseen circumstances arose. Remarkably, during these two months, never did other practitioners struggle or break their silence or meditation to deal with problems related to their jobs. In addition to doing my job, I also had to navigate the center, figure out how to do laundry and get other needs met as they arose without having to directly interact with anyone else.

## So, how did they do it?

Every job is well-defined and documented. The 10 minutes of training, which was given by the person I was replacing, was able to speak since this individual's retreat had just ended. Everything I needed to know was written on a laminated piece of paper hanging right above the sink in the middle of my work space. Not only did it describe the tasks that needed to be accomplished, it described them in intricate detail. For the job of sanitizing dishes, instructions went like this: Turn on the dishwasher 30 minutes prior to eating your meal, check temperature gauge, rinse, stack, sanitize, tilt rack to speed drying, stack dry dishes on dolly. Sanitize cutting boards every other day, salad spinners on Sundays. A piece of paper and a pen hanging above the sink were used to document that the salad spinners had been washed.

Dirty dish rags were to go in a basket in the kitchen. Another meditator collects the basket and takes it to the laundry. Freshly folded dish

rags magically appeared every day on the shelf above the kitchen sink. Clean dishes were placed back on the shelves in the dining hall at the bottom of the stacks so the same dishes were not in constant use. The laminate specified exactly how many spoons and forks were to be placed in each area of the kitchen for the cooks to use. When the counter tops and sink were washed down at the end of a shift, another person entered the kitchen to wash the floors. Everything worked like clockwork.

What really was impressive was what happened one day when an alarm sounded on the dish sanitizing machine and a red light went on. Uh-oh, this was not covered in the training! But I did not freak out, instead referring to the laminate above the sink. Right there on the back it explained what to do if the alarm sounded. It noted: Look for a bottle of disinfectant under the sink and install it in the machine. Sure enough, there was a bottle under the sink and the laminate described exactly how to install it. Within moments, the alarm stopped beeping and the red light turned off. At the end of the shift, as the laminate instructed, I walked to the bulletin board, used the provided paper and pencil and left a note for housekeeping: "More disinfectant is needed for the dish sanitizing machine." Two days later, a new reserve bottle magically appeared beneath the sink.

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**"Follow procedures.  
Improve procedures."**

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Not only was the dish sanitizing job described in minute detail with every foreseeable problem or complication thought through and addressed, but everything at the center worked this way. A laminate on the shower door described how to squeegee the shower walls when finished showering (squeegee hanging in shower) and how to use the paper napkins (in a neat pile on the shelf, refreshed daily) to remove any body hair from the tiles. Instructions were given about how to hang the bath mat and spread out the shower curtain so it would dry.



A sign on the door of the laundry room displayed the hours of use. A laminate on the washing machine showed how to set the dials and the correct setting was also marked with permanent markers on the dial itself. A laminate described which detergent to use and how much. The detergent bottle was clearly labeled and the scoop inside was sized appropriately for one load. Instructions were given for cleaning the lint screen from the dryer. A sign-up sheet with attached pen (extra pens nearby), allowed you to reserve a time slot to do laundry so you would not conflict with others.

Two days before I my retreat was to end, a couple of laminates were slipped under the door to my room. They contained detailed instructions for returning the room to the exact state it had been in upon arrival. This included a reminder to reserve a time slot for the washing machine to wash the sheets and towels and instructions for locating a broom, dust pan and mop for cleaning the floor and rags and other cleaning supplies for everything else. It included instructions to flip the mattress over to even out the wear. Each item I had been provided was accounted for and each was to be returned to the same shelf on which it was originally found. After I left, it would be someone else's job to go into the room and inspect it prior to the arrival of the next person.

### Follow Procedures, Improve Procedures

This center did not always run like clockwork. The people doing the jobs had to document the procedures and the procedures had to be refined and improved over time. If you are looking for a mantra to chant at work, this would be a good one: "Follow procedures. Improve procedures." This is the way to evolve an organization. Don't just do your job, document your job and improve your job.

The meditation retreat center is an excellent example of what can be accomplished when practicing proactive maintenance reliability and organizational change. A new "employee" could be integrated into the organization and trained with ease, allowing the center to work flawlessly with a constantly changing "workforce." The level of detail applied to the task descriptions, the availability of the right tools for the job and instructions for dealing with varying circumstances have their place in every organization and in every department. This is exactly how you can begin to deal with defect elimination in your plant.

In contrast is a situation that occurred at a cement factory. The consultant had to call the hiring person when the entrance to the site couldn't be found.

The consultant was at the wrong site, having driven to the address found on the purchase order sent by the hiring person. Twenty minutes later, the consultant arrived at the correct site, but could not figure out where to park or how to get inside. Was the consultant supposed to be driving on the same driveway as these huge trucks? Was the individual really supposed to drive underneath the giant mixer and park just beside it? Was that little door on the side of the big building really the main entrance? Was there really no security guard or anything on the other side of that door besides a sign-in book? Did the consultant really have to walk into a bunch of offices to get someone's attention to ask where to go? There were no signs anywhere! You get the idea.

When it comes to condition monitoring, many people contact consultants when they are tasked with taking on a condition monitoring program after the "expert" who had been running the program leaves. More often than not, the expert hasn't documented anything and the new person has to start the program over from scratch. Condition monitoring is based on trending data collected in the same way under the same conditions. If test procedures are not well-documented and followed, then existing alarms and baselines become meaningless.

Not only are test procedures frequently not documented, there also aren't clear procedures for reporting or follow up and review. It is not clear who gets the reports, when they get them, or what they are supposed to do with them. No one verifies if the diagnosis are correct or follows up with root cause failure analysis to prevent the same problem from happening again in the future. Processes and procedures are the string that binds the 10 components of a successful condition monitoring program together and each component can be defined and refined as a set of processes and procedures.

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It's been widely reported that up to 70 percent of defects and machine failures are caused by humans. This can be attributed, in part, to a lack of processes and procedures, or to personnel not following procedure.

As the tasks at the meditation center show, there is something to be said about taking pride in one's job, whatever that job may be. People feel like they are part of something and that they are doing their job in order to benefit others. In other words, they are working on behalf of a community and their fellow workers – even if they never look them in the eye or speak to them – and take pride in being part of an organization that functions so effectively. Basically, people can be happy doing any job if they care about it and if they care about the people they work with and for. Perhaps "right attitude" should be added as the 11th component of a successful program?

Right processes and procedures are only a part of the puzzle. In order to have a successful condition monitoring program, one needs to have all 10 components in place, including the others: Right goals, right people, right leadership, right tools, right understanding, right data collection, right analysis, right reporting and right follow-up and review.



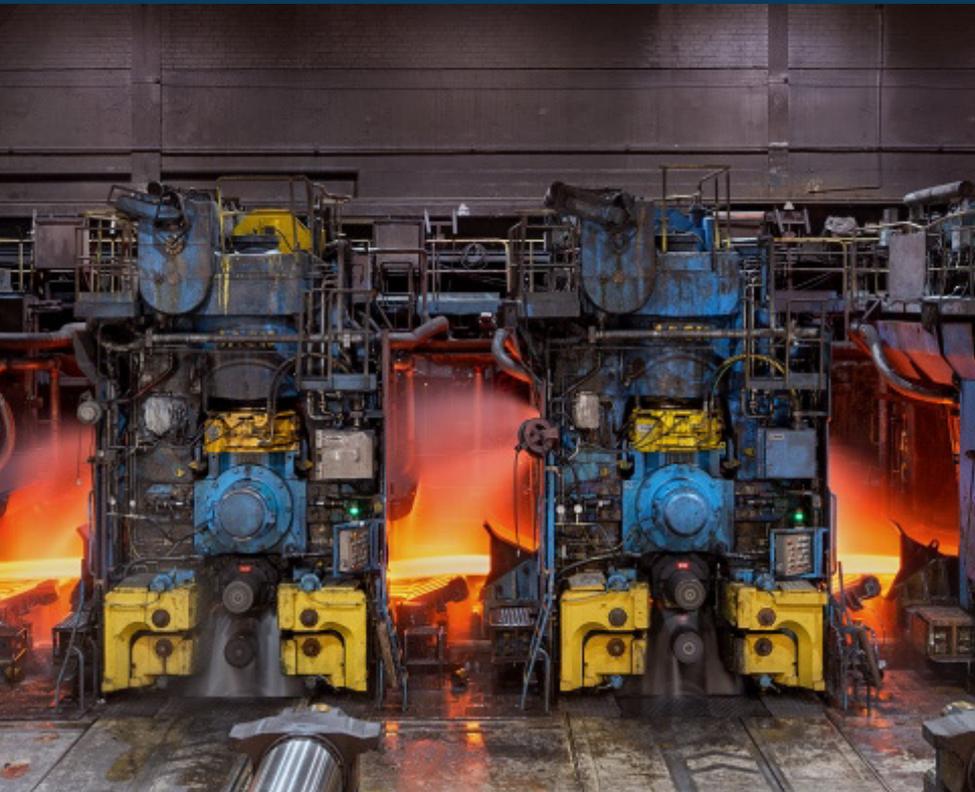
*Alan Friedman is the founder and CEO of Zenco, a provider of vibration monitoring program audits and training. Alan has more than 24 years' experience in helping people set up and manage vibration monitoring programs. Alan is the author of the book, "Audit it. Improve it! Getting The Most from Your Vibration Monitoring Program."*  
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