

High Performance Maintenance and Reliability

Written by Gino T. Palarchio, Ivara Corp.
Thursday, 01 March 2001 09:08

I have come to the conclusion in my most recent 2 year career in consulting that we have a tendency to over complicate maintenance and reliability as it relates to performance.

You will have to excuse me up front for my newfound long-winded consultancy talk while introducing the subject matter of performance. I have come to learn, however, that when attempting to express a viewpoint on an issue it is important to take the time up front to establish both a literal and visual common ground by way of definitions and models.

Performance in the workplace tends to be the result of two factors: the first being the motivation or the will to do something, and the second factor being the ability or skill to be able to do it.

The formula for achieving performance is straightforward:

Performance = (motivation or will) x (ability or skill)

The will to do something tends to be highly dependent on a very clear understanding of the value that comes from the doing.

The skill to do something is dependent on training and experience acquired in the past that have provided you with the abilities to do the job to a predefined standard.

When these concepts are substituted into the formula, it becomes:

Performance = (clearly understood value achieved by doing) x (training and experience to be capable to do)

High Performance Maintenance and Reliability

Written by Gino T. Palarchio, Ivora Corp.
Thursday, 01 March 2001 09:08

At this point it is fair to ask, "If the formula for performance is so simple, why is it that we experience such diverse ranges of performance among organizations in every industry?"

The diverse ranges of performance are due to the high degree of variability that exists in organizations providing employees with a clear understanding of the value of doing a job as well as the diverse range of training and experience among employees. Suffice it to say, an organization's performance is directly correlated to the sum of all the individual performances of each person in the organization.

So what does all this have to do with high performance maintenance and reliability?

The core purpose of a maintenance organization in any industry should be to ensure the physical equipment or assets it is held accountable to care for are maintained to a standard allowing them to always meet the business objectives of the company—product quality, throughput, delivery, safety and environmental integrity, all at the lowest possible cost.

The performance of the maintenance organization, therefore, is completely dependent on the degree to which the maintenance standards required to meet the business objectives are adequately defined and the degree to which they are adhered to.

It is here where due diligence to adequacy and adherence varies greatly among high performance maintenance and reliability organizations and all others.

Interestingly, where most organizations completely miss the mark on both adequacy and adherence is by treating them as two completely separate issues; they do not ensure that employees expected to adhere to maintenance tasks also are involved in developing them. Experience has shown that if employees (people that know the equipment best—maintainers, operators, first line supervisors, technical staff) are not involved in the development of maintenance tasks by working together in a small group with a highly structured methodology, the organization is:

- Less likely to use as a starting point, the business objectives of the asset the

High Performance Maintenance and Reliability

Written by Gino T. Palarchio, Ivara Corp.
Thursday, 01 March 2001 09:08

maintenance tasks are meant to achieve

- Less likely to uncover all the most reasonably likely maintenance tasks required to achieve the business objectives
- Less likely to be compelled to adhere to maintenance tasks they do not have ownership in, since they were not involved in developing them in the first place
- Less likely to have a crystal clear understanding of how the maintenance tasks support the business objectives and thus unlikely to be motivated to adhere to them

Essentially it now becomes much clearer why maintenance and reliability organizations can easily experience either low performance or high performance when inputs to the formula become:

Low performance = (low adherence to tasks with unclear business value) x (inadequate task definition)

High performance = (high adherence to tasks with clear business value) x (adequate task definition). MT

[Gino Palarchio](#) - Gino T. Palarchio is director of consulting services, Ivara Corp., Burlington, ON, specializing in the delivery of maintenance and reliability solutions, including software. He has 20 years of experience in the maintenance and reliability profession, 18 years working in industry, moving through such roles as maintenance engineer, first line supervisor, business unit manager, and over time towards a manager of corporate reliability.