

The Law of Unintended Consequences

Or why some incentive programs work against reliability and maintenance excellence.

Actually it is not clear whether this is a law, a rule, a guideline or simply a figment of someone's imagination. However, there are some examples in history of well-intended laws and policies that generated significantly different results from what the originators desired. One example that stands out is the actions and reactions resulting from the passage of the Volstead Act in October 1919. The intention was to ban alcohol (Prohibition) in any form. The unanticipated result created the so-called "roaring twenties"-an era of unprecedented violence in the US that did not end until repeal in 1933.

Perhaps not quite as profound a result sometimes occurs in our factories. Management institutes certain policies designed to achieve a desirable outcome like increased production without additional personnel. Occasionally these take the form of an incentive program focused on the number of pieces an individual can produce in a certain time frame. While such programs are not "bad" or "wrong headed" as such, organizations must guard against the unintended consequence. Many incentive programs are well designed and work very well. However some do not work well at all. How does this relate to Maintenance Excellence and Reliability? A case in point follows.

Recently a company was complaining about a "failed" attempt to implement Total Productive Maintenance as part of the Equipment Reliability Process. After some consulting "detective" work several facts regarding this implementation were quite clear. The management understood TPM and Equipment Reliability; the policy statements regarding TPM and Reliability were clear and unequivocal-almost a mandate. Senior management was often present on the factory floor. Further, factory floor personnel, with more than a few days service, knew about the policies and local supervision talked about the policies at meetings.

Given all the good things above, why was the TPM implementation considered a failure? At lunch while discussing the Reliability and TPM process with the direct labor folks, it was discovered that many completely avoid the topic and seemed "antsy" to return to work. Investigating this phenomenon further uncovered the issue of the existing pay system. Management had introduced a "pay for performance" system that amounted to a piece work system. In addition it was "uncapped" to the extent that direct labor folks with a base salary of \$25,000 per year were actually making two or more times that by producing more pieces. This was great for a short time until Quality began to suffer and equipment began to break down. The conclusion was that this was the law of unintended consequence at work. Despite the clear policy mandate to implement TPM and Equipment Reliability, there was no way these production folks were going to shut down the equipment for routine maintenance. Shutting down the equipment reduced the potential income of the workers. Therefore they would run the machines until they failed and then stand over the maintenance techs, urging them to hurry and return the equipment to production. This was a chaotic and almost unmanageable situation. Also the system had begun to create friction between the two entities of Production and Maintenance. Maintenance technicians were convinced the production people were

abusing the equipment and the production workers were sure the maintainers did not know how to keep the equipment running right.

There were no easy solutions to this difficult situation. After much discussion a wage and salary consultant was engaged. Apparently it will take about two years to correct this situation. Meanwhile the company will endure additional expenses, administering a complicated formula to pay folks on a sliding scale adjusting somewhat for the pay lost while the equipment is shut down. Not an ideal solution for anyone but necessary to overcome the results of the Law of Unintended Consequences.

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