PWW P (+61 8) 9457 6297 E info@plant-wellness-way.com

Creating Enterprise Asset Management Policy for the Heart and Soul to Make Your Operation Best-in-Class

Let a Plant Wellness Way EAM System-of-Reliability End Your Business Risks Forever

Abstract:

Creating Enterprise Asset Management Policy for the heart and soul to make your operation best-in-class: A story of how a company came to realise the importance of its operating plant and equipment to its on-going success, and then changed their asset management practices to maximise the productivity and performance of its operation. It includes a checklist against which to gauge your asset management policy.

Keywords: enterprise asset management policy document, industrial asset management policy document, physical asset management policy document

One day, some time ago, there was a large industrial operation that came to a sudden halt because its most important piece of equipment broke down. Everything made by the operation depended on this machine working properly and reliably. The new Production Manager did not know what to do, since he had never seen the machine (we'll call it the 'gizmo dooverlackie') stopped before.

Facing total disaster if production did not restart, the Production Manager ran red-faced to the Chief Executive Officer (CEO) and told him the bad news. The CEO listened to the panting Production Manager tell what had happened to the gizmo dooverlackie. As the story unfolded the CEO visualised a great, and possibly fatal, calamity if the business could not make product to sell.

The thought was more than the CEO could bare and he ran down the corridor to the Chief Finance Officer (CFO), with the new Production Manager running a step behind. He asked the CFO how well the business was financially, because the gizmo dooverlackie had stopped, and no product was being made. The CFO shook her head as she told him that there were supplier bills to pay and shareholder dividends to disburse. There were employees' wages due, raw materials to buy and tax commitments to address. It was not a good time for the gizmo dooverlackie to stop she said.

The CEO began to frown with worry, because this was quickly becoming the worst day of his life.

Next, he ran to the Vice President of Engineering, with the Production Manager and Chief Financial Office in rapid pursuit. Knocking hard on the door he rushed into the VPs office asking if he knew how to fix the gizmo dooverlackie. The Engineering Vice President said he did not. He knew the principles of how it worked to make the product, and he had been involved with its purchase and installation some years back, but he did not know how it really worked, or how to fix it.

The CEO was close to panic. He asked the VP what they could do to get the gizmo dooverlackie working. The VP Engineering suggested that they all should go to the Maintenance Manager, as he would know what to do.

The Maintenance Manager was taken back when the CEO, CFO, VP Engineering and Production Manager burst into his office. He took a gulp and asked what had happened. The CEO told him that the gizmo dooverlackie had stopped and no one knew how to get it going again. He then asked

the Maintenance Manager if he knew how to fix it. The room went dead quiet as the four of them waited for the reply.

The Maintenance Manager was a straight-shooter and told them the truth. No, he did not know how to fix the gizmo dooverlackie. He understood the engineering and the materials science used to build the machine, but he could not personally fix it. He did not have the skills to do so. When the CEO heard that he began to sweat, as his worst nightmare seemed to have come true.

Seeing how bad the CEO and the rest of the group had taken the news, the Maintenance Manager said, "Our maintenance fitter, Bert, knows how to fix it." The CEO's sigh was an obvious relief. "We had better go and see Bert." added the CEO.

Bert was just finishing his lunch when five of the most important people in the company walked into the lunchroom. The CEO, the CFO, the VP Engineering, the Production Manager, and the Maintenance Manager stopped in front of Bert. Bert looked at them one by one and asked what had happened; had the sky fallen in? With a worried, questioning look the CEO asked Bert if he knew how to fix the gizmo dooverlackie.

Bert looked at them again. "Sure, I can fix it" was his reply. He watched as the five faces lit-up with smiles. Now he understood why they had come to see him; they did not know how to keep the most important machine in the whole operation running.

Bert looked at his boss. He knew his boss' and the Production Manager's salaries were trice his wage, he had read that the VP Engineering earned five times his wage, the CFO earned ten times his wage and the CEO earned one hundred times his wage if you included bonuses. And here they were asking him how to fix the most important machine that made them the money to pay them those ridiculous salaries. Bert silently wondered how things had gone so wrong in the business world. How could things have become so senseless, when the most highly paid people did not know how to keep the equipment going that earned them the money to pay for their livelihoods?

With a shake of his head Bert got up from the table and said to them to follow him and he would show them what needed to be done with the gizmo dooverlackie. And because there were so many things in each of their lives that depended on getting the gizmo dooverlackie working, they all followed Bert to the workshop.

Taking his tool kit Bert walked everyone to the machine. There he spoke to the operator and listened to the details of what had happened. Narrowing the problem down to a failed part, he took the old part to the store to get a replacement. What was in-store had degraded with age and lack of care and wasn't usable. He asked the CEO if he could drive him to their parts' supplier downtown. All six of them got into the CEO's four-wheel drive and drove down to get the part. If there was going to be bad news, they wanted to be the first to know about it.

Bert had the new part back in-place within ten minutes of returning from the supplier. Another ten minutes later the gizmo dooverlackie was up and running, churning product out at full production rate. The whole calamity had lasted three hours.

Bert cleaned-up his working area and had started packing his tools away when he heard his boss, the Maintenance Manager, ask, "Bert, you did some great work today. Is there anything I can do to stop this from ever happening again?"

Bert looked at his boss and said, "You could make sure the right parts are in store and they are kept in good condition for immediate use. You could also help by keeping the engineering and

maintenance documentation up to date, by writing fail-proof ACE 3T procedures and then getting the crew trained to do them with precision maintenance mastery. That would help."

His boss said, "I can do that for you Bert."

The Production Manager asked Bert, "What can I do to help prevent this problem from happening again?"

Bert looked over to him saying, "If your operators knew their machinery and processes better, so well that they ran production steady and stable, in statistical control, without over-stressing parts. If they knew how to do the simple equipment care monitoring and servicing very well, that would help."

The Production manager replied, "I can do that for you Bert."

The Vice President Engineering was the next to ask Bert what he could do to help. Bert looked him in the eyes and said, "If you could standardise on the equipment you buy. If you brought good quality machines, that were easy to maintain, and we could readily source the parts. If you could make sure new equipment was installed to the highest precision standards and quality workmanship. That would help."

The VP replied, "I can do that for you Bert."

The Chief Finance Officer didn't expect she could do much, but she too asked Bert, "What can I do?"

Bert turned to her and replied, "If you could financially model new projects and new plant, even individual pieces of equipment, with a view to choosing items that had the least lost production and losses, and the lowest maintenance expenditure throughout their operating lives. That would help."

"Sure Bert," she agreed, "we can start doing life-cycle costing."

Finally, only the CEO remained to ask Bert what he could do to help make a better future.

Bert gave him his answer. "If you could make it known across the company that these things, we have discussed will become our standard practice. That they will be the minimum expected. If you could inspire our people to always seek to use better solutions, better methods, and better knowledge. That would help."

The CEO replied, "Sure Bert, I can do that for you."

They walked Bert back to the workshop, shook his hand and thanked him again for his help. The next day the five managers got together and wrote the company's first asset management policy. This is what it said:

"We recognise that our plant and equipment are the foundation on which the livelihoods, plans and dreams of all of us (Shareholders, Staff, Employees, Suppliers, Customers and Community) depend. Without sure and certain, competitively priced, quality products from our operation, we put our collective and individual futures at grave risk.

Because our business and personal success depends on the reliable and faithful production of 100% quality product that satisfy our customers' requirements, we will adopt and use throughout the company those proven, best-state-of-the-art, proactive asset management, engineering, project,

operational, maintenance and financial practices, methods and business systems that minimise operating risks and prevent failure of our plant and equipment throughout its lifetime.

Starting from the conception of a business idea through to the decommissioning of a plant we will work together in cross-functional teams to seek ways that maximise the safety, productivity and value-added in every part of our operation, and its supply and distribution chains. Included is the need to constantly minimise, and eventually eliminate, our business losses, wastes, accidents and incidents so that we do no harm to our planet, our people and our community.

We want all our people to continually seek and learn better ways that improve our productivity and minimise our risks in every task. We encourage their learning with both formal methods and by controlled experimentation. Through the on-going drive of our people to seek excellence and mastery, we will become and remain the best-in-class performer that ever existed."

A week later the five managers went to see Bert in the workshop and showed him the policy. Bert read it twice while they waited in silence. He looked up at them nodding his head. "Yes, these are good words. I can build a life with a company that lives this way."

The CEO was clearly proud that Bert valued the same things that he and his managers did. "Bert, you have done this company a great service in questioning our old ways." said the CEO. "I want you and your family to spend this weekend at my holiday home with my family and me. I cannot give you money for the good work you did on the gizmo dooverlackie last week, or for the ideas you gave us. But I want to show my appreciation to you, and, if you are willing, you are an invited guest at my home this weekend." The CEO then turned to his managers and went on to say, "And on Saturday evening I would like all of you to also come to the holiday home and together let's celebrate our newfound understanding and enlightenment."

Bert was obviously taken back by the unexpected compliment and proposal. He advised he needed to check with his family, but it was highly likely that he would accept the offer. The CEO told Bert and the others to let him know their decisions in the morning. With that the meeting ended.

A new, brighter future, full of adventure and growth, had started for the company and its people.

My friend, the story is fabricated, but the sentiment and the message are true. Those organizations that do not give priority to creating health and wellness in their operating plant and equipment will never be top class. They will have too many failures and losses. The right way to think is to realise that every key part in an item of plant or equipment must work correctly if the equipment is to work correctly. Put a critical part at risk of a bad outcome and you put the equipment at risk of failure. When the equipment is at risk, you put your business at risk. And all bad risks become losses when your luck runs out.

Production success starts and ends with the individual health and well-being of each important part in your machines and equipment - when the parts stop working your business stops.

An asset management policy must make sure that all business efforts support the wellbeing and long-term health of your equipments' critical parts (It is not the equipment that is important, but the individual components in the equipment that are important to its immediate and long-term well-being). The outcomes from the engineering, project, production, maintenance, and finance groups must improve equipment health and lifetime wellness. The only purpose those groups existence is to build a successful business. And a successful business is possible only if the plant and equipment make on-time, quality product that customers willingly buy.

Everyone's bright and happy future needs your equipment and machinery parts to work accurately and reliably. Everything that happens in your operation, including safety, must put the wellness of your equipment and machinery parts first. You must support your parts' operational health with good decisions and actions that deliver high reliability and a safe, long, trouble-free operating life.

It is important to be sure that your asset management policy meets all the requirements that make it a useful and valuable document for guiding the future plans and practices in your operation.

I believe a policy needs to be inspirational to the people it applies to. I want a policy to excite those people and get them out of bed each day with a motivating vision full of happiness and positive expectation. A limp policy does nothing for its readers or the company. You may need to get the final policy (the one that will be published to your people) written by a good writer who can inject that sort of energy and life into it.

You will find a table at the end of this article to help you build into your asset management policy those things that are important in minimising risk and maximising plant and equipment health and wellness. It lists the requirements for quality, risk and asset management policy documents extracted from internationally recognised standards. Use the 'Policy Statement Content Comparison Table' to check-off how many of the recommended requirements are met in your asset management policy.

I'm not saying to force your asset management policy to comply with every requirement in the checklist. The most important factor must be the amount of 'life' it breathes into the people and the business, along with its ability to produce good equipment health decisions and actions. But the checklist will help you get useful content into the policy so that it focuses your business-wide efforts on the right things - those that reduce life-cycle operational risk.

Here is another asset management policy that I have always found inspirational, no matter how many times I read it. It comes from a real company, and it was the basis for a turn-around that got them from 'also rans' and into the top decile of operations in their industry world-wide. That is what a stirring asset management policy can do for your business.

"We recognize that a well-planned and executed Asset Management strategy (which encompasses best operations and maintenance practices) is a key risk management tool that can assure plant performance and hence reliable achievement of our desired business outcomes.

To that end we believe that maintenance is fundamental to its success and the reliability of its plant and equipment assets is dependant on the effectiveness of the maintenance function.

We attribute the success of our equipment performance to the collective contributions of its maintenance, operations, engineering, and finance departments and to a workplace culture of relentless risk management, responsible risk taking, root cause investigations, continuous improvement and staff involvement in decision making."

Good luck and contact me through the website if I can help you in drafting your asset management or maintenance policies.

My best regards to you,

Mike Sondalini
www.plant-wellness-way.com

Policy Statement Content Comparisons

Policy Requirements	Quality Management System ISO9001:2000	Physical Asset Management System PAS55-1:2004	Risk Management System AS4360:2004
Responsible to develop	Top Management (Board or Chief Executive Officer)	Top Management	Board or Executive
Obligatory policy content inclusion	• Commitment to comply with requirements of the Quality Management System • Commitment to continually improve effectiveness of Quality Management System	• The overall physical asset management objectives • That physical asset management is directed at achieving the Organization's strategic plan • A commitment to continually improve the physical asset management process • A commitment to comply with current applicable legislation, regulatory and statutory requirements and with other requirements subscribed to by the Organization	
Recommended policy content inclusions			• Objectives of risk management • A commitment to risk management
Possible policy content inclusions			• Objectives and rational for managing risk • Links between policy and strategic/corporate plans • Guidance on extent and type of acceptable risks taken and ways to balance threats and opportunities • Processes to be used to manage risk • Accountabilities for managing particular risks • Details of support and expertise available to assist those accountable for managing risk • Level of documentation required • Statement of how risk management performance will be measured • Commitment to periodic review of risk management system • Statement of commitment to the policy by directors and executives
Organisational context	• Appropriate to the purpose of the Organization • Equal and consistent to Organization's overall policies and strategy • Provides the framework for setting and reviewing measurable quality objectives	• Appropriate to nature and scale of Organization's physical assets and operations • Be derived from how the management of physical assets will help achieve Organization's strategic plan • Consistent with other Organizational policies • Provides the framework for setting physical asset management strategy, objectives, targets and plans • Be consistent with Organization's risk management framework	• Create linkages to other corporate strategies
Showing commitment to policy	• Visibly endorsed by Top Management • Communicated across organization • Understood by all persons within organization • Reviewed for continuing suitability	• Visibly endorsed by Top Management • Documented in suitable media • Implemented into use to be standard practice • Maintained in condition to meet purpose • Communicate individual physical asset management obligations ▪ To relevant employees ▪ To relevant third-parties • Published to stakeholders where appropriate • Reviewed periodically for relevance and consistency to Organization's strategic plan	• Publish Policy • Communicate Policy ▪ Establish management team to communicate and involve staff across organisation ▪ Raise awareness across organization on risk management process ▪ Risk management is in the organization's culture