

How can ISO 55000 help during a pandemic?

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We all agree that Strategic Asset Management is a good thing, and that ISO 55000 is a great framework to build an asset management system around. Have you given much thought to how Asset management and ISO 55000 can help us through a pandemic?

I do not need to remind anyone of what we went through in March and April (and beyond) and how a massive number of critical decisions that had to be made correctly in a short period of time. From an asset management perspective, it centered around the following:

- What work can I suspend, for how long and what risks will the organization be exposed to?

The answer to that seemingly simple question requires answers to a mountain of questions well beyond the obvious "Can the job be done safely?". For example:

Will stopping now impact reliability/system resilience in the next 24 hours, 7 days, 7 months?

- o If we don't finish this relay upgrade today, we can't get this line back in service. It's April so I might be good for a month or so, but I'll need that asset for the summer load.
- o If I defer too much for 6 months, I won't have the manpower to finish before winter.
- o What if neighboring utilities have a problem, will I be able to adequately supply power for myself? For them?
- o What happens as the lockdown rules change every day.
- o What happened when the daytime load shifts from office buildings to residential neighborhoods?
- o I planned this work with 18 months' notice to my regulator, if the outage is cancelled can I survive until the next window of opportunity? Can I shift the work previously planned for that window?
- o This is all part of a contingent portfolio of work, can the entire package be shifted out or the schedule recovered?

This and a hundred other questions were answered by every utility again and again as the situation changed or our knowledge of the situation changed.

The projects in question ranged from planned O&M, emergent O&M, short-term capital, and long-term capital projects. Even projects that were driven by their financial benefits couldn't be dismissed easily.

The only way we can make good decisions is to have good information. A good-sized utility will have hundreds of projects going on at once. Deciding what to do requires that we know all about them. Some of the things we want to know include:

- What projects are underway?
- What stage are they at?
- Why are we doing them?
- What impact will they have?
- Who's in charge of the project?
- Where are they?
- How many people are working on them?
- What's the supply chain exposure?

All of these are pretty much common sense. A very good project/program management system will make generating these answers straightforward. But how does this relate to ISO 55000? You can have good systems in place that will help answering these questions but adhering to the requirements of the ISO 55001 standard will ensure your systems are up to the challenge.

ISO 55001 consists of 7 main sections with 27 total topics of focus. Nearly all of these can help you prepare for and respond to the next crisis.

Section 4 - Context of the organization

While not obvious, this section is highly relevant. The first sentence "The organization shall determine external and internal issues that are relevant to its purpose..." If you don't have a clear understanding of your purpose and issues relevant to it, how can you react to any crisis?

Section 5 - Leadership

Good leadership in any crisis may seem like a given and adherence to a standard won't change that. However, the standard call for formalized leadership commitment to things like "Promoting cross functional collaboration" and "Promoting continual improvement". This builds a culture of top down support that is crucial in a crisis. Section 5 goes on to make sure top management sets policies and establishes an organization that can manage the assets in normal times. This provides unforeseen benefits in times of stress as the organization's purpose (context) is clearly defined. A well-structured and conceived asset management system will provide increased proactive leadership means in addressing a major disruptive event, which requires a reactive response. It's already well-rehearsed.

Section 6 - Planning

This section seems a bit obvious. The more you plan, the better you are but no plan survives very long in a crisis. However, what this section puts in place are the rigorous processes for planning that can be used in any situation. It requires you document what will be done, who will be responsible, what resources are required, when it will be completed, etc. All of this sounds a

lot like the answers to the questions above. Having all this information in a formal, consistent format will go a long way. This section also talks about risk and planning to reduce risk. While the pandemic may not have been expected, having already planned for the risk of completing a project late would sure come in handy when deciding what can be deferred.

Section 7 – Support

This is a huge section in the ISO document with many subsections. Having a plan developed by a handful of very smart people is good, but unless it is resourced and supported well, its just another binder on a shelf. This section includes the following major subsections:

Resources – If the system does not have the resources needed to establish implement, maintain, and improve the asset management system, it will never be of much value.

Competence – You need more than procedures; you need good competent people running them and writing them. Formal emphasis of competence will ensure you have qualified people when you need them.

Awareness – The need for organizational awareness is under appreciated. Take this example: If the guy changing a pump in the field understands the significance of his actions and why filling out the paperwork and updating the asset register when he's done is important, the information contained in the organization's information systems will allow for the correct model pump to be sourced, when you need to replace it in a hurry during a crisis.

Communication – the communications model put in place for asset management becomes even more important when people are remote, working from home, and under stress. People need to get clear messaging on what needs to be done or you can't expect it to be done correctly.

Information Requirements – Information about the assets and projects is key to good decision making. Do you have information systems that can be called on to generate accurate project information? The time to put this in place is now, not later.

Documented Information – Information is no good if it cannot be trusted. Data quality can only be ensured with rigorous adherence to data control procedures. Document control is the key to keeping formal systems running, plus proper document control ensures that all staff are working to the same policies, processes, drawings, asset registry, procedures, etc.

Section 8 – Operation

This is a shorter section in the standard, but it carries a lot with it. The organization's operational planning and control skills go hand in hand with being able to change direction swiftly and precisely. Change management and management of change systems allow you to react to internal and external changes with a minimum of risk. This section also covers outsourcing. Placing an equal level of rigor on subcontracted service and material suppliers will improve their ability to support you when needed.

Section 9 – Performance Evaluation

This is the section that makes sure all the activities talked about in the previous sections are done well, evaluated for effectiveness, and reviewed by management. Without this, entropy will cause even a perfect system to degrade to uselessness.

Section 10 – Improvement

Section 10 requires the information gained during the execution of the processes defined in Section 9 to be used to improve the system. There is always room for systems to be improved. If you went through March and April and can objectively say there is nothing you could do better, then congratulations. For the rest of us, having a formalized system to manage improvements and foster continual improvements will make our response to every crisis that much better.

In summary, nothing could have prepared us for Covid-19 and hopefully we'll never have to deal with something like this again. Unfortunately, we know that storms will hit, equipment will fail, blackouts will occur, severe economic conditions will impact funding, and illness will happen. In addition to all the other good reasons to implement an ISO 55000 compliant asset management system, having a rigorous system in place that helps your organization manage its assets effectively is really helpful; however, in addition to this, the system also breeds good culture such as having regular cross-functional meetings plus evaluating and escalating risks and opportunities as normal practice. These changes in culture end up making you better prepared during unforeseen events and allow for contingency measures to be put in place more easily as information, communications and awareness are well understood and practiced processes.

For all the reasons listed above, consider improving your AM capabilities in a formal, rigorous way and consider ISO 55000 as the framework to follow.

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