

Automation of Compliance Management A Silver Bullet?

Councils increasingly must demonstrate how they are complying with quality and environmental requirements but automating the process comes with its own challenges, as **Chris Laidlow**, CEO of h2ope, explains.

Talk to 3 waters service managers about compliance and you soon realise that they all have very similar stories to tell about the real-world problems of demonstrating adherence to the many, often onerous, rules, regulations and standards to which their organisation is subject. Automating compliance reporting is an attractive option, and one that is gaining in popularity, but care needs to be taken to ensure that the benefits of automation are fully realised

Managing water quality and environmental compliance can be complex. It demands a large amount of effort and

coordination to perform the numerous activities related to collecting and collating evidence, analysing results and producing reports against a multitude of conditions. Whilst compliance authorities specify the frequency and content of reports, the onus of determining an acceptable measure of supporting evidence (audit trail) lies with the organisation.

Developing and more importantly, maintaining a robust, transparent, and auditable reporting process is not easily achieved. Consequently, audit time can be a long and arduous exercise for compliance managers and auditors alike.



WHY IS THE TASK SO ONEROUS?

A brief look at the high level processes and issues of compliance management highlights some of the challenges.

Translation: Translating compliance rules and conditions into activities and responsibilities has certain challenges. Councils need to have a technical understanding of the subject matter in order to translate compliance requirements into actionable procedures and the wording of compliance requirements can often be open to interpretation. Where numerous conditions exist, there could be interactions between conditions that are not immediately apparent. Compliance conditions are largely written by people who have little detailed understanding of the practicalities of measuring and reporting on the conditions being set. Despite best intentions, what appears on paper to be a simple exercise of collecting data and reporting against a set of limits, is in fact a complicated and time-consuming affair, possibly involving a variety of internal and external resources.

Roles and Responsibilities: For a typical council, the allocation of compliance activities and the associated roles and responsibilities is spread across a number of different functions or teams in the organisation, commonly Compliance, Operations and IT. The resulting fragmentation can become a serious problem without clear business processes and ongoing coordination between each party. It is important to note that determining the detailed compliance activities must be a collaborative effort. If key personnel from the relevant parts of the organisation are not included in this fundamental stage, the implementation, and indeed the whole compliance management system, will be deficient.

Single Points of Failure: There are several skill sets required to implement a comprehensive compliance management system, and for small organisations where some staff have multiple roles or no back up, there can be several single points of failure.

Hard Copy Records: Councils, to a greater or lesser extent, currently rely on the use of paper records. The issues with managing paper-based systems are many and varied. Controlling hard copy documents is fraught, field-completed records are often lost, illegible, incomplete or contain errors, double handling of records wastes resources and introduces delays, the list goes on. In addition, hard-copy systems do not lend themselves to efficient work-flow management, real-time monitoring of compliance performance, supervisory oversight, or distributed access to results.

Electronic Records: For most councils, a good portion of their water-quality and environmental-compliance data is automatically collected via SCADA systems and stored in a database of some kind. The role of retrieving, cleansing and analysing this data, often falls to one person in the organisation with the requisite technical and spreadsheet skills. Spreadsheets are a natural tool to use for this purpose

but they are often uncontrolled, can contain hidden errors, are difficult for a new person to understand, and are very time consuming to audit.

Collation and Reporting: In order to compile compliance reports, all of the evidential information must be collected from the various sources, for example, maintenance/workflow systems, spreadsheets, laboratory analysis results, inspection forms etc. The information is checked for completeness and measured against the compliance conditions to determine the level of compliance. Missing or incorrect records must be located or supplementary information provided in the case of transgressions. The format of the compliance report, and the supporting records should be arranged to aid auditing.

IS AUTOMATION THE ANSWER?

The capabilities of modern data management technologies are undisputed, and given the issues highlighted above, the benefits of automated compliance reporting are clear. However, it is not a panacea for poor business practices and there are several factors to consider before using automation to ease the compliance burden.

The many complexities of manual/semi-manual compliance systems do not go away when an automated system is employed. Automation replaces many of the manual activities, which are time consuming and error prone but automated systems need to be properly configured to perform according to a robust and auditable process.

Therefore, it is important that the organisation has a good understanding of its compliance requirements before any configuration takes place. This should not be an onerous task but it must be carried out in collaboration with the system vendor to avoid later re-work, delays and loss of confidence in the project.

CHANGE MANAGEMENT

It is normal for some people in an organisation to feel uncomfortable with the introduction of new technology. This is especially relevant in the water industry where the demographics are of an aging and largely trades-based workforce.

Introducing a new system will mean changes to roles and responsibilities. Many of the current activities, such as manual data entry, complex analysis, document collation and reporting, should become obsolete, nevertheless the changes to people's normal routine will need to be identified and communicated.

In the early stages of introducing a new system, it is critical to get buy-in from key staff as they will assist (or not!) in identifying the changes to roles and responsibilities that should occur. To assist in gaining positive involvement of staff, it is sensible to explain how the revised compliance process will work and where the benefits lie. The ongoing support of the users of the new system will determine the amount of benefit returned to the organisation in the long term.

If done well, the new process will mean less administrative work, less opportunity for error and more transparency

around compliance performance. The spin offs for staff are less paperwork, less frustration and more time to do the things they're good at.

TRAINING

Automated reporting systems are powerful tools, but tools all the same. They must be matched to the job at hand and the operators must know how to use them. The need to provide adequate training is indisputable, but the understanding of what "adequate" means varies. There is a tendency for organisations to carry out training on a new process and expect that this is sufficient. For a variety of reasons this is not always the case and conformity with the new process should be monitored, especially in the first few months, and refresher training given until the process is bedded in.

A major contributor to speed of uptake of a new system is its simplicity and ease of use. The effort and cost of selecting and implementing a new system can be wasted if it is confusing to use, slow, inflexible or does not deliver the expected results.

CREATING A BUSINESS CASE FOR AUTOMATION

Creating a business case for investment in an automated compliance system should begin by defining the current state of the organisation's compliance processes. Answering the following questions will help define the process and reveal the level of risk, time input required and quality of outputs.

- Can the compliance process be easily defined?
- How many people are involved?
- How much time does it take (effort and duration)?
- Is the process reliable?
- Does the process have any single points of failure?
- Where does the data come from?
- What is the compliance history like?
- What do the auditors say?
- Do senior managers know how compliance is tracking?

By speaking to compliance system vendors, an outline of the future state compliance process can be determined and from this, an estimate of costs and benefits can be derived.

ASSESSING AUTOMATED COMPLIANCE SYSTEMS

The assessment process for any new system will involve many discussions on topics which are too numerous and complex to list here, however, a demonstration of the following key attributes can save time with further assessment of a particular system:

- Can the automated compliance performance be verified?
- How easy is the system to use?
- How long does implementation take?
- How is data security assured?
- How fast is it?
- Can a clear audit trail be demonstrated?
- What is the level of support and what does it cost?
- What is the future development path?
- What are the termination conditions?

Less tangible considerations are often left out of assessment criteria but can be just as important. The relationship and degree of trust between client and vendor are crucial to a successful long-term outcome.

CONCLUSION

The obligations on councils to demonstrate compliance with quality and environmental requirements is increasingly becoming a focus for regulatory authorities. Without some level of automated data management and reporting, the complexity of compliance activities and the resulting burden on staff resources can become problematic.

If well selected and implemented, automated compliance reporting systems have significant benefits in terms of: eliminating time consuming tasks and error prone processes; improving the reliability and consistency of reporting; and providing oversight and transparency of compliance performance.

These benefits are easily achievable if the organisation has a good understanding of its compliance requirements and takes care to identify and manage the impacts of implementing such a system on its people and processes. [WNZ](#)