



Case Study

**Sullivan Nicolaides
Pathology**

Certification:
ISO 14001:2004
Environmental
Management Systems
& ISO 9001:2008
Quality Management
Systems



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Sullivan Nicolaides Pathology

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A lean, green culture in healthcare services

With concerns about the environment and sustainability at the forefront of the media and our political landscape, organisations are doing their part in greening our planet for a brighter future. However, **it's not just manufacturing or agricultural businesses that are cleaning up their environmental act. Service providers are also looking at the ways they can reduce their impact, and healthcare is no exception.**

In 2009, Sullivan Nicolaides Pathology (SNP) became the first pathology lab in Australia to receive ISO 14001 certification for its environmental management systems. And since then the results have been quite remarkable. Not only has SNP developed a new culture and philosophy amongst its staff, it also found waste reductions and cost savings throughout the practice, while further improving the efficiency and quality of its services.



Sullivan Nicolaides Pathology is one of Australia's largest pathology practices, with laboratories and collection centres extending from northern Queensland and Darwin to Northern NSW. Since opening its first practice in 1956, the dedication to provide a quality service has always been at the heart of its operations. **As well as being certified by NCSI to ISO 14001, SNP also has ISO 9001:2008 (quality management systems), ISO 15189 (medical testing) and ISO 17025 (testing and calibration) in place.**

Now part of the global pathology and radiology group Sonic Healthcare, SNP provides diagnostic services for local patients and their doctors, as well as commercial testing for the biotech and food industries, and for company employees and insurance firms.

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Solid quality foundations

SNP first gained medical testing accreditation in 1985, from the National Association of Testing Authorities (NATA). Total quality management was then introduced in 1991, and became embedded within the scientific culture of SNP. In 2000, all of SNP’s sites achieved ISO 9001 certification.

As Margaret McCowan, SNP’s Quality Systems Manager, explains, this allowed SNP to achieve several things. “First, it extended our quality focus to non-scientific areas of the business. Secondly, it became a tool for improvement as well as compliance – not just a checking function. Thirdly, and most importantly, it provided us with a framework for developing and improving business systems.”

A word about waste

ISO 14001 was first released in 1996 to help businesses identify and control the environmental impact of their products, services or activities. It was then revised for clarity in 2004, as its application became more widespread.



“Pathology creates a lot of physical waste,” explains Liz Reid, SNP’s Practice Environmental Systems Coordinator.

“We generate biological and chemical waste, and we also use a lot of fuel in our vehicles, collecting samples and delivering specimens. Part of the implementation process was to look at things which are significant to our business – which included energy, water, paper and what we put down the sewer.”

Two laboratory sites, Coffs Harbour and Grafton, were selected for the initial environmental management systems certification. “Coffs Harbour was constructing a new laboratory, so we could have a lot of impact with building design.”

Changes included better use of natural light, smart lighting and timer switches for energy use reduction. But documentation and processes were affected as well.

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“We use a lot of chemicals for histology, and we used to send it offsite to Brisbane for disposal. That was a financial cost as well as an environmental expense. We’re now able to safely recycle Xylene onsite. And we reduced the amount of Xylene we were purchasing and sending off site for disposal.”

SNP used to purchase 110 litres every six weeks, but can now order small amounts when it’s required. Previously, 220 litres of Xylene was sent off-site for disposal in a three-month period. After implementing the recycler this decreased to just 20 litres.

“Grafton was different,” explains Liz. “We needed to work with an established site. But we made positive changes – we were able to decommission a fridge and incubator, we made sure the air-conditioning was working effectively.”

Other process changes included recycling specimen bags and reducing the number of tubes needed for testing. “We now use 2.7 million specimen bags a year – almost a million less than two years ago. We collect 600,000 less tubes for testing, which means less to collect, transport, refrigerate and dispose of. It’s made a huge difference.”

A leaner system

These process changes did not happen in isolation. At the same time, the SNP executive was launching its *Lean* management program, focusing on streamlining work processes to create better efficiencies. Leanne Ballard, Process Analyst and Improvement Manager, says the company began implementing the *Lean* philosophy in 2007.

“*Lean* is our major tool that we use to strive for continuous improvement,” she says. “The main benefit is that people actually do it. It’s not rocket science, it’s commonsense.”

“The things we get out of *Lean* include improvements in quality and safety, improvements in business and lab processes, and reductions in our impact on the environment. Cost is a factor as well, and inventory is part of that. It’s about making the best of what we’ve got.”

Already, *Lean* process changes have improved turn around times at one hospital lab by as much as 50%. “We’re striving to reduce our recollections, which will also improve customer satisfaction,” says Leanne.

The *Lean* methodology will be part of SNP’s next ISO 9001 audit. “Leanne has been working to make it a part of our culture,” says Margaret. “It’s a philosophy that looks at problem solving, people and processes. The application of *Lean* tools and principles to healthcare began in the US in about 2000. *Lean* works well in healthcare as its primary objective is to ensure value - which translates in healthcare to improved patient care.”

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Only a few laboratories have ISO 9001 in Australia, and even less have a fully certified ISO 14001 environmental management system. “It’s part of our strategic direction,” says Jenny Riley, SNP’s Practice Quality Manager. “And it certainly sets us apart.”

Liz explains that there were many reasons why SNP decided to seek ISO 14001 certification. “We’re a good corporate citizen, and it’s good for our image – it’s in the forefront of the media so that helps. But it’s also good for staff morale, and there are a lot of cost efficiencies in doing it.”

Although those cost savings have not yet been quantified, they’ve been seen throughout the practices through both Lean and environmental policy changes.



Liz also found that the ISO 14001 Environmental Standard was straightforward to apply. “Having our ISO 9001 QMS in place made it a lot easier – we already had the document management and processes.”

“But as it was the first environmental audit, we had to work out how to do it, what systems we needed. The second time was a lot easier! We had a pre-certification audit and document review with NCSI, and that was helpful. We learnt a lot and made the changes we needed to make.”

Liz was also surprised by how committed the staff were to the environmental standard.

“Our staff are really supportive and keen, quite passionate really, about making a difference for our environment,” says Margaret. “We’re now also doing it on a more tangible level too,” explains Liz. “We’re involved in 15 Landcare projects across Queensland and NSW, which is a hands-on way for staff to make a difference.”

Creating an integrated management system

Now that quality assurance is such an ingrained part of their business, SNP is working to develop an integrated management system, linking ISO 9001, ISO 14001 environmental management and Lean all together. “We’re taking



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the common components from each, because they’re inter-related now,” says Jenny.

“It’s good to look back and see how far we have come,” says Margaret. “Standardisation has been an achievement to celebrate. ISO 9001 has give us a ‘whole of business’ focus, with standard procedures across all sites, and standard training and development programs for staff.”

“This does not limit our innovation though. It allows us to implement other new initiatives more easily across SNP sites. What we’re doing now is moving it up a notch, with Lean and our environmental practices.”

With NCSI’s expertise in both environmental and quality management best practice, they are ably supported in this objective. And the result is not just more efficient and cost-effective work processes, but also better outcomes for patients, for the community and for the environment.

For more information on how your small business can achieve ISO 20252 and ISO 9001 accreditation with NCS International, please visit our website www.ncsi.com.au, email us at marketing@ncsi.com.au, or call 1300

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