

LEAN MANUFACTURING

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handed over to Dave Atherton, assistant manufacturing manager at Knowsley, who described the plant's 5S programme. This, he said, was basically 'all about organising the workplace to make sure that you have everything in the right place.'

The first 'S' is 'sort' which revolves around deciding what is necessary to do the job. Anything which is not needed is removed. According to Atherton: "There was all sorts of clutter lying around. We had to decide what was important, what needed to be kept in those areas. We did this using a coloured tagging system".

Next comes 'store' an important element according to Atherton.

"If something needs to be there, you need a place to put it".

The third 'S' is 'shine' which involves monitoring and restoring the condition of the area during cleaning. Then there is 'standardise' which involves setting the standard, and training and maintaining it.

According to Atherton, perhaps the most difficult of the

'S's is 'sustain' i.e. keeping the momentum going. However, Atherton reported that a 5S culture was now embedded in the plant and that standards continue to be improved.

In addition to the 5S programme, Knowsley has also implemented what it calls its 3R's programme. As was explained by Mark Clayton (senior production manager), Mike Salter and Mike Clements, this started with a SMED workshop organised by ViP in May 2008, the focus being on make-ready reduction techniques with the purpose of creating volume during the day for either maintenance or commercial print.

However, it was subsequently felt that a traditional SMED was inappropriate and so the team rebranded the process 3R's – run-ready-reduction. The initial targets set for, for example, multi-web day runs was 120 minutes for a single press line and 180 minutes for a double press. These were reduced initially by 25 per cent and the new targets are 85 and 130 minutes. In fact, already some make-ready times are less than 100 minutes.



● A huge press control sound haven runs between the CTP room and the press hall

Knowsley has also assembled a continuous improvement team to lead and develop the process from a number of departments including manufacturing, training, engineering and management, as well as introducing an asset care programme in order to 'share the load'. This involved assembling a number of asset cham-

pions each of whom are responsible for health and safety, training needs, documentation, tools, set-up procedures and one step lessons, standard operating procedures, 5S plans, liaison with other sites and suppliers within their specific asset area. The process is measured using a tactical implementation plan

which sets objectives and timetables.

In all these improvement projects, one of the key elements to their success is communication, keeping the staff informed. As was explained by John Rafferty, technical services manager at Knowsley, a main thrust in the communication process was the introduction of a weekly four-page newsletter which is published as hard copy and on the Internet. As Rafferty admitted, this involved a lot of work but things had been made easier by creating a rota for the editorial and everyone in the management team contributing each week.

Further initiatives undertaken at Knowsley were described by Yvonne Boelema, human resources manager. These include a 'Bright ideas' scheme to encourage innovation through staff suggestions and a 'don't walk on' scheme to engage staff in proactive safety awareness. In other words, if something is out of place, pick it up and put it back.

The company is also developing links with the local community and young people including being involved in the Printit! project. In addition, there are a number of sports and social activities available to staff, and a rewards and recognition

scheme is high on the agenda, as is the provision of additional training to increase quality and performance.

Whitehead concluded the Knowsley presentation by saying: "There is a lot going on at Knowsley. However, you have to recognise that once you start such initiatives you cannot take your foot off the pedal. Fortunately, we have an excellent team to take it to the next stage".

Practical points

Not that Knowsley is the only UK newspaper printer implementing lean manufacturing techniques. Archant Print is another one as was explained by Nick Schiller, the company's managing director. Using photographs taken during a walk around his plant, he highlighted what he described as 'a few ideas for hard times'.

To demonstrate that being lean need not be restricted to inside the building, Schiller first described how £2,500 a year is being saved at Archant's Thorpe plant by not mowing the grass on the plant's eight acre site which used to occur bi-weekly. Instead, in place of the grass, there is now a meadow which only needs to be cut once a year. In addition, it has a wide

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The pros and cons of outsourcing

POSSIBLY one of the most unusual parts of the Newsprinters operation is the outsourcing of its pre-press production to Agfa. How it operates was explained at the Wona seminar by Roy Cowley (pictured), Agfa's newspaper sales manager for the UK and Ireland, as part of his talk on outsourcing for newspaper producers.

He began by saying that outsourcing is not a 'major panacea', describing it from Agfa's viewpoint as being the execution of all or part of a pre-press production task by another company.

"We only stick to what we know how to do, that is make plates on a ctp device, and look after that equipment and service. We don't want to do presses; we don't know anything about paper, nor ink. We just want to work in the area that we understand and we know.

"We do that under a Service Level Agreement (SLA) and it is here where the devil is in the detail. It all about is what you can do, when you do it and how you do it. That is where all the time and effort is spent in the early days of a project to make sure that the client understands what we will do and we understand what the client wants. That is so important. These things cannot be entered into lightly and everything must be written down".

For example, with Newsprinters, Cowley said that Agfa undertakes clearly defined tasks as per the SLA and legal contract. Equipment uptime is measured against SLA parameters. Agfa also measures against KPIs and produces daily reports on how the equipment has performed. This data is then fed back into Newsprinters' system.

Cowley reported that the whole pre-press process within Newsprinters is Agfa's responsibility.

"We put in the equipment, make sure that it is ready when it is required and that it performs to particular KPIs. It involves looking after the equipment and taking care of the consumables which is a huge problem especially at Broxbourne. There, we deliver a 40 foot trailer truck load of plates into the plant every week.

"We also have to rotate the stock and batch control it: we have two batches on site to ensure against any faulty material. This all takes time.

"Then there are the software systems for



● Roy Cowley

which we provide continuous support looking after, monitoring and servicing them. We have to calibrate and maintain each one of the platesetters, producing a test plate every day which has to be signed off by Newsprinters before the platemaking starts".

However, Cowley admitted that the Newsprinters' model was unusual and probably unique, and that there can be a number of levels of outsourcing the main movers being to outsource problem areas and make cost savings.

"It can just be a sophisticated service contract. At one end, it can be all the services we provide Newsprinters or at the lower end it can be no more than regularly cleaning the processors".

He continued: "There are challenges to outsourcing on both sides of the fence, for us the outsourcer and for you. Our big challenge was changing the way business was done. That required a culture change in Agfa.

"We had never been that closely involved in production before. We had to build a new team and integrate it with the customer's teams. We had to find the right people. That caused us some concern. Certainly here at Knowsley for a while we had a high churn of people until we settled on the guys we now have.

"When you bring people in from the outside industry, it takes training and understanding. You have to develop skills and standard operating procedures, and write down exactly how the process is done. You need to do this because you need to be very efficient. We very quickly picked up on the fact that we are penalised if we don't make plates on time.

"It is hard work. To stop the equipment breaking down, we maintain it to death..."

"Outsourcing is also a lifetime commitment to the customer. It is not a short term thing. We put a lot of investment into it and so it is something which we want to go forward. We want to become part of the business, understand what is happening, understand the customer's future, his aspirations, what is he looking for, his objectives".

For the client, it also involves changing the way business is done said Cowley.

"You are handing over potentially the golden fleece of your production chain to another guy. I understand it takes some doing and I am sure a lot of you are sitting there and saying never in a million but that's what you need to think about if you are going down this road. You have to trust the outsourcer to be accountable and create partnerships. You need to integrate your teams with ours and work together. That is very important".

If all this happens, then there are a number of benefits.

"Number one is cost reduction," said Cowley. "There is no way on heaven or earth you are going to be talking to anyone about outsourcing unless you are going to save money.

"The second benefit is improved quality. If you concentrate hard on issues like taking care of processors, stock management, and consumable management and its usage, then quality certainly improves. It also allows you, the customer, to focus on your core business and tasks..."

"It provides financial predictability and aids budgeting; you know what the monthly charge is going to be now and what it is going to be in the future".

Further benefits mentioned by Cowley included consumable management, and the potential for having software and hardware upgrades built into the contract, as well as disaster recovery through back-ups becoming the outsourcer's responsibility.

In conclusion, Cowley recommended that, when considering outsourcing: "What we have at Newsprinters is the whole thing but I do not necessarily think that you will see that again and I am not advocating it. Stick with smaller things where you feel you could save some money and improve quality if someone else did it for you".



● Everything in its place at the end of each shift