

► has made the decision to incorporate their existing processes into the lean asset reliability programme model, including all their health and safety tasks.

Berry said: "One of the big benefits of this way of working is that it sets the points of expectation, defines where the process should be so it is no longer open to interpretation. It removes the element of chance."

By going through the programme, teams work together to come up with the new tasks and in this way adopt the new ways of working as a matter of course. The level of ownership in each team has increased and this has led to a pro-active approach to tasks, self-reviewing on a regular basis and flagging up to management any issues they uncover.

**Training**

Having been introduced to the concepts and methods of the EMS programme, the whole team at Talybont worked together to produce a process map that showed in detail every single element that was required to process water taken from source and converted into top quality drinking water. By creating this process map at the pilot site in Bretton, the team identified 19 key areas with more than 1,000 functions and over 250 actions needed for the maintenance planning regime.

Daily, weekly, monthly and yearly tasks are now recorded on the planning board at both Bretton and Talybont. The maintenance rounds are flipped to green when complete and red when incomplete. This is especially helpful for operator communication for shift workers

People involved in the LeanRCM team for each site include:

- Operating lean delivery manager
- Operators
- Mechanical, electrical & instrumentation (ME&I) team
- Process science team
- Graduates
- Senior managers
- Supervisors
- Asset management teams
- Local asset management team

By operations staff undertaking more proactive condition maintenance, this reduces the time taken by ME&I on reactive activities so they can focus on more planned maintenance

Matt Gardiner, the improvement consultant who facilitated the programme on both sites, said: "By standardising the procedures, everyone has the same frame of reference and the same standards to work to. It is introducing a change from relying on 'good people', who may not always interpret requirements in the same way, to relying on good systems."



Mike Berry, operating lean deliver manager, demonstrates how the regular tasks are monitored daily, weekly and monthly at Talybont water treatment works



Stuart Draper, engineering director for Northern Rail and chair of Refocus for the Association of Train Operating Companies (left) and Richard Kelly, managing director of EMS (right) beside the dam at the Welsh Water Talybont Water Treatment Plant in the Brecon Beacons

Gardiner continued: "EMS challenges preconceptions on the nature of reliability. When I explain that only 11% of process failures are down to the age of the equipment I can immediately see people realising the potential for improvement."

The way operators handle equipment and processes on a daily basis is equally important as the input from maintainers and engineers. Organising the equipment and routine operations in a specific way can drastically improve a site's reliability.

**External recognition**

EMS's managing director, Richard Kelly, said: "The focus when we start working with a company is on the process and when we come to the end of the programme people realise that it is the way they work together which is a big part of what has changed."

The results achieved at DCWW have now provided very useful learning points on best-

practice for a contrasting industry. On a recent visit to the Talybont site by the Association of Train Operating Companies, Derek Jackson, fleet reliability focus group secretary, said:

"What interested me most about our visit was to see how, by applying the LeanRCM principles; Welsh Water had changed the profile of their work.

"The LeanRCM process led to the standardising of their tasks and also enabled them to simplify many of the tasks and then increase the number of simple daily task that could be done by everyone, not just selected staff as previously."

He continued: "The most valuable aspect was that by increasing the number of daily tasks that could be done very simply and quickly it was possible for Welsh Water to reduce the difficult, heavy engineering tasks, that take place every three months or so.

"This has freed up their practitioners up to add value around the site."