

## Getting a grip on maintenance

A crushing sense of complacency could impede supermarket equipment maintenance. But what can be done to improve matters? The latest RAC roundtable identified some answers. **Ian Valley** reports

### Panellists

**John Austin Davies**  
BRA and Epta  
**Gino Barontini**  
Quantum Manpower  
**Daniel Byrne**  
Marks & Spencer  
**Adrian Crowther**  
Co-operative Group  
**Marc Edwards**  
Quantum Manpower  
**Pauric Gaughan**  
Gel-Clear  
**Darren Hogg**  
Space Engineering Services  
**Vern Klein**  
Aspen Pumps  
**Greg Lindley**  
Epta Coldservice  
**Simon Palmer**  
Space Engineering Services

The word 'maintenance' implies keeping things as they are, retaining the status quo, more of the same. The inference is that maintenance is a fixed pursuit that offers no room for improvement.

This is wrong on two levels, our delegates felt. First, it's always possible to boost the performance of the maintenance regime. Indeed, it should be seen as a crucial element

in every supermarket's continuous improvement cycle. Secondly, rationalising the maintenance operation can lead to big gains in uptime for supermarket cabinets.

The cost of a sound maintenance programme is absurdly low compared with the cost of dealing with, say, a catastrophic cabinet failure. As well as helping prevent this sort of problem, effective maintenance can also make a significant contribution to the bottom line by ensuring that cooling equipment is energy efficient, and therefore produces lower power bills and higher environmental performance. The most compelling argument in favour of a properly implemented maintenance strategy, however, is that it ensures reliability.

But Adrian Crowther, technical performance and design manager at Co-operative Group, sees a problem: "One of the critical elements is the time allowed for maintenance activity. That works both ways: obviously, from a retail perspective, supermarkets don't want equipment out of commission for too long and, from the operational perspective of the engineer



attending site, they don't want to be hanging about waiting for cabinets to be emptied."

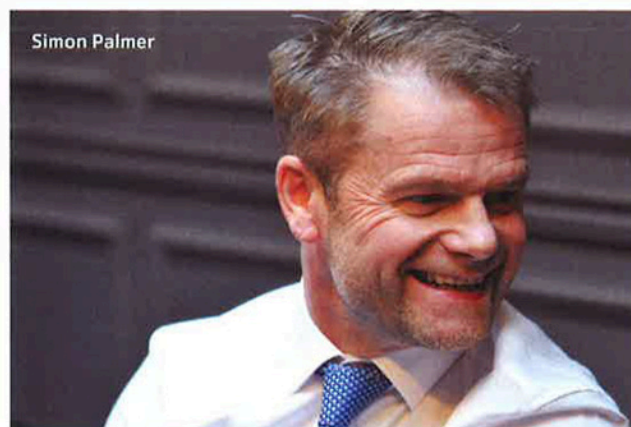
### Time limits

Mr Crowther said too many companies try to spread the activity within timeslots too thinly with the

**"I have been in energy-saving meetings and maintenance has not even been mentioned"**



Daniel Byrne



Simon Palmer



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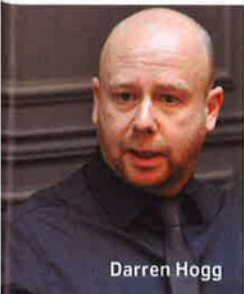
resources they have available: "So things get missed or fail to get the attention they deserve, and that is evident when the refrigeration system starts to go out of kilter a matter of days later."

Daniel Byrne, regional refrigeration manager of M&S, agreed: "As stores open for longer hours and the timeslots for activities like cleaning the condenser have got smaller, it has become more difficult for the engineer to get into to carry out maintenance work properly. It's a difficult one because it is business pressures that have led to this situation and we are constantly trying to find new ways to allow the engineers the time to do the work they need."

For the contractors, Darren Hogg, lead engineer on maintenance at Space Engineering Services (SES),



Adrian Crowther



Darren Hogg



Marc Edwards



Vern Klein



Gino Barontini

said: "Look at the standard operating procedures and you just don't have time to do everything on there; there is nowhere near enough time, not even close."

However, Simon Palmer, who looks after the Sainsbury's contract for Space, said condition-based trials by his company were yielding encouraging results in two stores, one rural and the other town-centre based: "What we have done is to bring all the disciplines together in one store for 24 hours. So, for example, we've got case maintenance people along with a service technical engineer."

"In the daytime, planned preventive maintenance [PPM] is carried out at the back-of-house along with service technical engineering. Although it's only six months down the line, the results of the trials so far are encouraging. For example, they have helped to bring down the frequency of call-outs on both sites."

#### Breakdown challenge

For Mr Crowther, challenges remain; many stemming from the way breakdowns are reported: "If you use asset-based information, in theory you shouldn't get a call-out that is applied incorrectly because

it's down to the specific asset. However, the system is only as good as the information that describes the problem and that's where you get a kickback because it's often down to interpretation."

The call-out might, for example, simply comprise: 'My cabinet is not working. Why isn't my cabinet working?' Mr Crowther agreed: "They won't know that there's a fan down... they won't know that the coil's iced up... they won't know that the system is short on refrigerant... they won't know that there's something wrong with the pack, because they are only seeing the manifestation of the problem."

This, in turn, could lead to an engineer with the wrong type of expertise being sent out. One way to prevent this might be to focus more sharply on training to increase diagnosis skills, it was felt. However, for Greg Lindley, technical account manager at Epta Cold Service, skills in the refrigeration sector are being eroded: "When I came into the industry, all the best maintenance engineers were ex-supermarket fridge engineers."

"However, as the supermarkets have started opening until 11 o'clock at night and opening their doors again in the early mornings,





John Austin Davies

maintenance has become more difficult and less convenient. The result is that those guys aren't staying in the industry, or are moving into service because of the better hours."

But this is not the only reason for maintenance to be neglected, said Mr Lindley: "We pay maintenance engineers considerably less than a grade one fridge service engineer. If maintenance is that important – which, I think, we all agree it is – why is the maintenance engineer treated as a second-rate engineer?"

#### Maintenance pressures

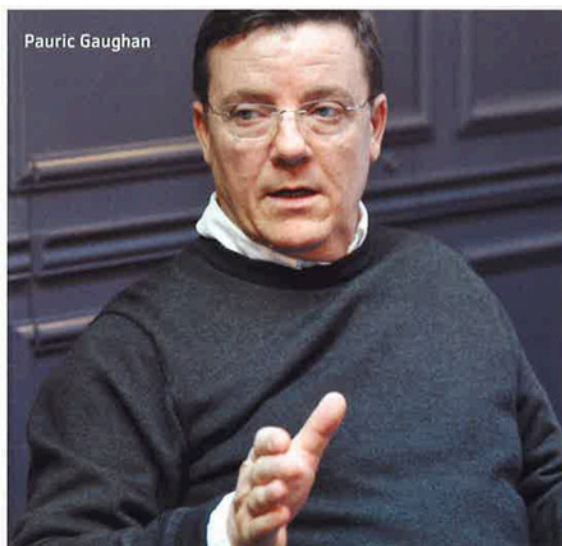
Piling on the maintenance pressures is, according to Mr Byrne, the increasing use of value engineering in the design of refrigeration systems: "Value engineering seems to drop everything we need as service professionals to get the job done without creating an impact on the retailer. But, by the time it gets to us, they have already taken out the bypass valves and other smart things we can do to ensure that we don't have to shut plant down."

For Mr Crowther, the onus is on the designers to minimise the risk of leaks. "The more valves you put in, the higher the potential risk... I understand what you're saying in terms of bypass and all the rest of it, and it is relevance to maintenance, but the problem is that it can also contribute to potential risk. For example, the more stem valves you introduce, the greater the risk



Greg Lindley

**"Cleaning practices, especially around airways, has a massive effect on how the system works"**



Pauric Gaughan

that the stem will weep."

All the participants in RAC's roundtable event acknowledged that the maintenance required to look after supermarket systems doesn't need to be particularly complex; something as simple as cleaning can have a significant impact on the functioning of the systems.

This is especially true of supermarket cooling systems, which are particularly susceptible to the build-up of grime and slime. Not only are dirt, dust and detritus carried in the air, but stored food can also leave an organic residue on the casing, coils and condensate pipes.

This represents a significant hygiene threat, but also leads to operational problems in the equipment. For example, dirt accumulating on the coil will reduce its ability to absorb heat, decreasing performance and resulting in bigger energy bills and reduced component life (see box).

Notwithstanding the need for effective cleaning and maintenance, everybody agreed that effective communication was an essential element in the mix.

John Austin Davies, director of Epta, concluded: "Looking at the technology we have today, the service engineer has to deal with so much more complexity because of the interaction with HVAC systems and the variations in electronic systems. All this requires a better technical understanding.

"However, the fundamentals remain much the same. The behaviour of engineers is critical and good communications can make a crucial difference to how effectively they operate." **RAC**

## Making a clean break

Only by understanding the nature of a problem is it possible to fix it. And it can be the modest challenges that cause the most grief, according to Vern Klein of the Aspen Pumps Group: "Problems can be triggered by simple things like sagging plastic drainage pipes, which environmentally are an absolute disaster in my experience because they cause water to hang."

Wherever there is water, airborne particulate bacterial contaminants can lurk: "You can suck the water out, but that doesn't tackle the origin of the problem. If we can discover the root cause for the water leaks, then we have found the golden chalice."

One major root cause of standing water on the shop floor is blocked condensate drains, as featured in last month's RAC. However, the roundtable heard from Pauric Gaughan that there is a simple, low-cost solution to this. Cooling Award-winner Gel-clear is a purpose-developed condensate drain tablet for food retail display cases and the treatment of biofilm jelly in refrigeration drainage.

Effective for up to 12 months, Gel-clear condensate drain tablets – which are safe to use with condensate pumps and Evac systems – prevent the build-up of microbial mass, jelly and slime.