



Greener lenses in Limerick

Joe Ayling travels to Limerick in Ireland to visit the world's largest contact lens manufacturing plant

Johnson & Johnson's Vistakon contact lens manufacturing plant in Limerick has been given a lick of metaphorical green paint since *Optician's* last visit two years ago.

Since founding the Limerick plant in 1996, healthcare behemoth J&J has spent around €500m on three major extensions of the plant, but more recent investments have been made on improving environmental performance.

General manager Barry O'Sullivan is on hand for a welcome to the site with a firm handshake and some Irish wit. 'Welcome to God's country,' he says.

Looking after the planet has become an obsession at Limerick, the world's largest contact lens manufacturing plant, with \$18m of J&J green funds devoted there in the past five years.

'The reason we are focusing on the environment is because it makes good business sense,' O'Sullivan says.

Taking a tour of the plant, the first signs of energy savings are evident on each of the 30 contact lens production lines, making lenses for J&J brands including Acuvue Oasys, TruEye, Moist and Advance.

Manufacture of lenses is achieved largely through robotics, with computer controlled vision systems monitoring each lens for quality in real time. Power supply to the machinery has been made more efficient over the years through the installation of central vacuum pumps and other energy saving measures.

The subtle energy savings on the production line are combined with robust investments in two natural gas power generators and a geothermal cooling system visible around the perimeter of the Limerick site, with both introduced in the past year.

The generators provide usable thermal energy and a third of the site's electricity supply, thus reducing CO₂ by 6,000 tonnes. Meanwhile, two underground wells pump water into the site's geothermal cooling system to



From left: Margaret Stokes, junior EHS specialist Mary Dempsey, Marcella McParland, EHS specialists Anne Irwin and Coleman Dillon

provide plant cooling, saving around 800 tonnes of carbon annually. Once the water has been used it is recharged to the local river system at 18-20°C, which is 4° below the allowed level. Vistakon stresses that the cooling water does not come into contact with any chemicals or raw materials and does not change in terms of chemical properties.

Untouched by human hand

Since *Optician's* last visit to Limerick in 2009, Vistakon has continued to run a tight ship at the plant, where machines, moulds and lenses cannot be touched with a human hand.

On reaching each vast corridor – some seem to extend several hundred metres – of the 300,000sq ft site, staff must walk over sticky mats to remove any dirt and germs from their shoes.

'You should need sunglasses for the shine off the floor,' says Erich Frese, quality director.

Hair nets, white gloves and robes must be worn by staff too, creating the feel of a gigantic operating theatre.

The world's largest contact lens manufacturing facility remains one of only two plants making Acuvue lenses globally, the other being in Florida. Operations are strongly guided by the J&J mission statement, or credo,

which is displayed in the lobby in 15 different languages representing each nationality working there.

O'Sullivan says: 'Our credo was written in plain English in 1943 and says if you look after your customers your business will flourish. It is important everyone in the business knows the key objectives – we have to get customers and we can't lose customers.'

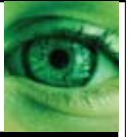
Also taking a tour of the plant is Marcella McParland, who was recently appointed director of professional affairs at Johnson & Johnson Vision Care.

She says: 'The credo is living and breathing and not just wallpaper. Manufacturing in Limerick is extremely aligned with this.'

The green message is also widely communicated throughout the Limerick site, where waste rooms separate cardboard, paper, metals, plastic, printer toner cartridges and plastic goods for recycling or reuse.

Margaret Stokes has overseen many of the plant's green initiatives since becoming environmental, health & safety (EHS) manager and product stewardship manager at Vistakon three years ago.

She says: 'If you don't continually challenge you eventually become



dinosaurs. We've had to focus on reducing waste and resources in the past few years and what we are about is trying to produce the most sustainable contact lenses.

'Customers are focused on the green side of products and we are seeing that in the volume of questions that are being asked. We've moved from needlessly using electricity towards using natural resources and made big savings.'

The net effect of Vistakon's green initiatives over the last five years has resulted in a 30 per cent reduction in the energy needed to make each contact lens.

Most up-to-date figures report that electricity was reduced by 25 per cent between 2007-2010, while CO₂ emissions fell 33 per cent during the same period. Between 2003-2010, water use was halved, while 98 per cent of waste from the site is now recycled or re-used.

McParland added: 'I am very impressed with the sheer scale of the Limerick plant and its commitment to the continual improvement of processes. There is massive energy and enthusiasm there to continue innovating in the green area and that



A focus on green issues at the Limerick plant makes good business sense for J&J

is to be applauded.

'As someone who recycles at home I was impressed with how they deal with waste through re-use and recycling. Vistakon seems to be continually learning best practice from other companies and places in the world.'

The size of J&J's operations dictate that operating in an environmentally friendly way is non-negotiable in this day and age. This is particularly true when considering the environmental cost of the billions of lenses shipped from Limerick to the far corners of the globe.

But the plant's energy changes are visible and set to continue, with plans

under way for an on-site windmill to supply more renewable energy and a waste-to-energy project which will convert carbon in a high strength waste-water stream to methane to power on-site boilers.

While much of the energy savings relate to machinery and robots, each of the plant's 639 staff play their part in different ways.

Indeed, it is the human element of Vistakon, and not just the shiny floors, which makes this plant worth a visit.

O'Sullivan adds: 'We don't take ourselves too seriously but we take our work seriously. We have a tremendous team of people here who are absolutely providing only the best.' ●



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