



 Magnox South

 Magnox North

Graduate Programme

*a life changing
experience...*



Who is Magnox?



Magnox is both a pioneer and a contemporary leader in nuclear generation and clean up in the UK. The UK Magnox commercial stations were the first nuclear power plants in the world with the initial station opening in 1958. In 2008, Magnox separated into two nuclear licensed companies as part of a reorganisation of the UK nuclear industry – Magnox North Limited and Magnox South Limited.

Today these world-renowned companies are responsible for ten reactor sites around the UK. These include two generating nuclear power stations which make a significant contribution to the provision of nuclear energy for the UK. In addition, they are tasked to defuel, decommission and safely handle the nuclear legacy for a further eight sites owned by the Nuclear Decommissioning Authority in England, Scotland and Wales.

Due to the sheer scale of this challenge, the diversity of facilities that were built, the different technical specifications used and the fact that this all happened many years ago, each and every clean-up project will prove to be uniquely challenging – demanding your skills, ideas and strategic vision. All this means that the career opportunities and potential for recognition and success are huge.

Why Magnox?

Tackling Britain's nuclear legacy is one of the most important and demanding managerial, technical, commercial and environmental challenges facing the UK over the next century. And that's why it is so exciting!

A career within either Magnox North or Magnox South will put you in the forefront of the nuclear industry with an accredited Professional Development programme which enables you to potentially gain experience in the complete nuclear lifecycle. As a graduate, you will put your acquired knowledge to good use and work in a real job right from the outset. Joining Magnox North or Magnox South will also give you the opportunity to be part of a multi award-winning company. A number of our sites have most recently received the Royal Society for the Prevention of Accidents (RoSPA) Awards Order of Distinction, an accolade recognising its 15 consecutive RoSPA gold awards for safety.

We are a responsible business that works hard in local communities, ensuring that our work is understood locally. As a graduate you will have the opportunity to further enhance our reputation in Corporate Responsibility terms, whether it's engaging with schools and colleges to raise awareness of science and technology careers or working with community groups to improve the local infrastructure.



What we offer...

- First class training and development opportunities
- Structured career path
- Wide range of training programmes and mentor support
- Additional experience through secondments and a hands-on role
- Starting salary from £24,500 – £25,500
- Welcome award of £1,500
- Interest free loan facility
- Four day week at some sites
- Excellent pension scheme
- Holiday entitlement from your first year of 30 days and bank holidays

The National Skills Academy
NUCLEAR

Magnox North and Magnox South are Associate Members of the National Skills Academy for Nuclear, taking an active role in the creation, development and promotion of world class skills and career pathways to support a sustainable future for the UK Nuclear Industry.

Magnox Locations



Bradwell



Dungeness



Hunterston



Trawsfynydd

Magnox sites

There are ten Magnox sites and two support offices situated in the countryside, by the coast and close to metropolitan areas. They are located in various positions across England, Scotland and Wales.

Magnox North

- 1 Hunterston A
- 2 Chapelcross
- 3 Wylfa
- 4 Trawsfynydd
- 5 Oldbury

Magnox South

- 6 Berkeley
- 7 Hinkley Point A
- 8 Bradwell
- 9 Sizewell A
- 10 Dungeness A



Careers overview

The majority of Magnox sites have now come to the end of their operational life so the focus of your work will centre around decommissioning in a safe and cost-effective manner with a strong environmental focus.

We won't pigeonhole you; we'll give you the freedom to experience different departments, sites and work streams in the initial two years of your development scheme to get a real taste for many aspects of Magnox. We are committed to the development of graduates and to offering opportunities across a broad spectrum of operations. These challenges will make the most of your skills and talents.

As a graduate you will have the opportunity to advance technology and develop processes within the UK nuclear industry. You will be expected to bring passion, commitment and a desire to excel to each and every project.

We are looking for individuals who are bright, energetic, open-minded, proactive and dedicated. You should have an excellent engineering, science or business-related degree as well as a keen interest and understanding of the commercial world.

You will need to be flexible in terms of location and be prepared to work at various sites during your career to take advantage of secondments and promotion opportunities.

We can offer you a real job with the opportunity to experience different areas of our business. You will enjoy a structured career path, exceptional training and the support of a mentor.

We expect you to work hard but we also want you to have a good work life balance and relax with your colleagues and friends. You'll find that our graduates enjoy a full social life, enjoying the various social activities arranged at all the sites.

Joining Magnox could be a life changing experience for you and a genuine chance to make an important difference.

We have graduate opportunities in the following disciplines:-

Mechanical and Electrical Engineering

Chemical Engineering

Civil Engineering

Chemistry

**Physics and Health Physics
(Radiation Protection)**

Environmental and Waste Management

Professional development & graduate support

As a graduate joining Magnox, you will benefit from our Professional Development Scheme. This provides you with the opportunity to become an expert in your chosen field and be recognised by the award of Professional/Chartered status within the Scheme. We recognise and support all relevant institute memberships and our accredited company scheme provides training and development that aligns with the requirements of the following bodies:

The Institution of Mechanical Engineers (IMechE)

The Institution of Civil Engineers (ICE)

The Institution of Chemical Engineers (IChemE)

The Institute of Physics (IOP)

The Royal Society of Chemistry (RSC)

The Institution of Engineering and Technology (IET)

The Institute of Environmental Management and Assessment (IEMA)



You will have access to an extensive support programme throughout your initial two year Professional Development Scheme. This programme will channel you towards the right opportunities to increase your knowledge and give you crucial experience.

Two key figures will support you: your line manager and your mentor. They will supervise and offer you guidance on a daily basis, and ensure you gain experience in technical and behavioural areas. They will also make certain you meet the requirements and standards of professional institutions and institutes. In addition they will help you obtain useful and pertinent secondments. Your mentor will continue to support your progress beyond the initial two year Development Scheme.

You will also have access to a wider network of support including a Site Professional Development Co-ordinator and other graduates. Facilities such as graduate programmes, e-rooms and Magnox events are there to help you get the most out of Magnox.

Graduate profile

Tom Davies

IT GIVES YOU A GOOD FRAMEWORK IN WHICH TO DEVELOP YOUR SKILLS IN YOUR CHOSEN AREA, BUT ALSO ALLOWS YOU THE FREEDOM TO EXPERIENCE OTHER AREAS OF THE BUSINESS.



Degree | BEng in Electrical and Electronic Engineering

University | Cardiff

Location | Magnox North Oldbury site

Job title | Power and Safety Systems Engineer

What's a typical day like for you?

“Actually every day is varied, that's what I love about the job. Saying that, I am frequently involved in allocating Work Order Cards for craftsmen to go out and do jobs, as well as adjusting work specification, providing technical support and dealing with contractors on site. And there is always a rush job, when everything else takes a back seat!”

What's been the highlight of your job to date?

“Oh, definitely being involved in an ‘Outage’. That's where a reactor is shutdown for essential maintenance for a short period. The whole site comes alive; everybody has to put in that extra bit of effort to make sure the reactor comes back on safely and on time.”

What do you think of the Graduate Scheme?

“It gives you a good framework in which to develop your skills in your chosen area, but also allows you the freedom to experience other areas of the business. You have the support of a Mentor, Line Manager and perhaps most importantly your colleagues – all are there to give you advice, encouragement and to develop responsibility. It is definitely a scheme that rewards you for the effort you are prepared to put in.”

What advice would you give a new Graduate?

Make the most of every opportunity. There are loads of invites to meetings, trips to other sites, and chances to work in other departments for a few weeks. Together they'll boost your knowledge and understanding of life outside your normal area of work.”

What are your hopes for the future?

“I want to become a fully qualified System Engineer for Site Electrical Systems. After that, I'd like to move around the business to get a wider appreciation of the company and industry as a whole.”

Finally, what's your passion outside work?

“Travelling is my thing and I'm lucky that I get such a generous holiday allowance at Magnox. It gives me the opportunity to explore as much of the world as possible.”



Graduate profile

Rebecca Harry

I enjoy the diversity and challenge my job gives me and I work with a superb team at Dungeness. With their support and my hard work, I feel I can develop into a confident and valued member of staff.



Degree	MEng Civil Engineering with Distinction
University	Portsmouth University
Location	Magnox South Dungeness A site
Job title	Civil Engineer

What's a typical day like for you?

“Actually a typical day just doesn't exist in the engineering team. Although there is plenty of planned compliance work to keep me busy, with ad-hoc civil advice for projects and system engineers, without fail something will come up each day that will throw all my plans out and challenge me to react to the situation. Inspections, site visits, talking to and instructing contractors, submitting paperwork - I cram a lot in to my four day week which starts around 0715. But now Thursday is the new Friday!”

I enjoy the diversity and challenge my job gives me and I work with a superb team at Dungeness. With their support and my hard work, I feel I can develop into a confident and valued member of staff.”

What's been the highlight of your job to date?

“Part of decommissioning sites is removing redundant structures. I designed a sealing solution for our cooling water system and was able to see that design through to installation earlier this year. I have also performed inspections and specified ongoing maintenance work around the site as well as providing research for a seismic study which is a unique opportunity for a civil engineer working in this country.”

What do you think of the Graduate Scheme?

“Well, it offers the support you need to gain Chartership with your accrediting body. The training ensures that you develop a good understanding of decommissioning and the challenges we face on the Magnox sites. You also get to know other graduates from a range of disciplines and from other sites across the company. But it's important to remember that, as with everything in life, you will only get out of the graduate scheme as much as you put in. You will get support, but you must drive your progress forward from the start if you want to reach your goals.”

What advice would you give a new Graduate?

“The first few months will fly by so start your diary on day one and set up your file ready for your quarterly reviews. Be sure to write down everything, get out on site as soon as possible and take the opportunity to meet people. Although you have completed your degree, you will realise that there is still a lot more to learn.”

What are your hopes for the future?

“I'm on track to go for my professional review in 2012 to become a Chartered Engineer. I would also like to gain the experience required to act as an intelligent customer for the company.”

Finally, what's your passion outside work?

“I love to get on my bike whenever I can, the fabulous landscape and wonderful sweeping county roads here mean me and my Hornet are a regular sight on Kent's roads.”



Graduate profile

Rob Easby

All in all, I must say the graduate scheme has been a great vehicle to set me on the road to chartership.



Degree | PhD Mechanical Engineering

University | Newcastle Upon Tyne

Location | Magnox South Sizewell A site

Job title | Safety Case Engineer

What's a typical day like for you?

“To be honest with you, typical days don't come along very often when you're working in the Safety Case Section. In the morning, I might be working on a large complex safety case for submission to the national regulators. Come the afternoon and I could be providing safety case advice to a team planning to replace an item of nuclear safety significance plant.

The variety of the job certainly makes for a really interesting and very busy week!”

What's been the highlight of your job to date?

“I was given the opportunity to design a new decommissioning and deplanting training rig for the site. Seeing my design being put into actual use to benefit the company was hugely rewarding.”

What do you think of the Graduate Scheme?

It allows you the freedom to move between departments to get valuable experience. Since I've been here I've managed to get secondments to a variety of areas and different sites. It all really helps broaden your knowledge and understand how the business works.”

What advice would you give a new Graduate?

“Act like a sponge! It may sound a bit daft, but you will be bombarded with new information every day. Absorb as much as you can. I am still learning new and interesting things nearly every day.”

What are your hopes for the future?

“Initially I want to become a Nominated Responsible Engineer on site and thereby being suitably qualified. Long term, I'm working towards becoming a chartered member of the Institution of Mechanical Engineers. All in all, I must say the graduate scheme has been a great vehicle to set me on the road to chartership. Hopefully in two more years I will have gained enough evidence to begin my application to the Institution.”

Finally, what's your passion outside work?

“The one thing I really look forward to is hitting the slopes, although not so much face-down with a mouthful of snow! I've skied for several years now and never got tired of it. I think it must be a combination of adrenaline, great scenery and of course the snow. A few beers afterwards always helps too!”



Graduate profile

Hilary Summerfield

It's really good if you like to be challenged; you are in charge of your own development and where your career goes is down to you and the choices you make.



Degree | MSc Physics and Technology of Nuclear Reactors

University | University of Birmingham

Location | Magnox North Berkeley Centre

Job title | Graduate Physicist

What's a typical day like for you?

"A typical day changes depending on what project you are working on. At the moment, I'm involved with holding interviews in Paris with the technical experts to understand what they are doing with their irradiated graphite and then comparing this to what we do in the UK. We're aiming to produce a report for the NDA (Nuclear Decommissioning Authority) to use in order to develop their strategy for dealing with our graphite waste."

What's been the highlight of your job to date?

"My personal highlight was the tour of the ponds at Oldbury. I saw the blue glow of Cherenkov radiation coming from a recent fuel addition to the pond. I had heard about it on my courses at university but this was the first time I had seen it in person and I thought it was brilliant."

I also really enjoyed going on the site tours in my first six months, it gave me a chance to see just how varied the reactors are, but also how a lot of the same problems exist despite the difference in reactor design.

The other main highlight has been my secondment to France. I spent five weeks in Lyon working with EDF CIDEN to learn about the packaging of irradiated graphite and I have just started the five weeks with ANDRA in Paris to learn about the potential disposal facility. Coming out to France and working in a completely different environment has been eye opening and an hour long lunch break has been a novelty!"



What do you think of the Graduate Scheme?

"It's really good if you like to be challenged; you are in charge of your own development and where your career goes is down to you and the choices you make. I wanted a lot of responsibility when I joined and, within six months, I was put in charge of leading a project. It hasn't been easy but I am really enjoying the work."

What advice would you give a new Graduate?

"When you first start, try not to turn anything down. You won't be able to do everything straight off and be honest when you don't know how to do something, but be ready to learn and try new things. By diversifying and trying as many different challenges and tasks as possible you will become a more rounded person. You'll also gain a better idea of how the company and the industry work."

What are your hopes for the future?

"Well, my number one priority is to become a Chartered Physicist. It's going to take another three to four years and will involve working on several projects to make sure I have the range and depth of experience required. I have already done a lot of travelling through my secondments but I hope to continue this in the next few years by working closely with the sites."

Finally, what's your passion outside work?

"I've always loved competitive running. I've taken part in a few 10K races and I'm hoping to enter a couple of half marathons next year."

Application details



We're interested in hearing from you if you meet the following requirements:

- you must be flexible and prepared to move location throughout the initial 2 year Development Scheme
- have a minimum 2:2 degree in an engineering or science related discipline
- ideally have graduated within the last 2 years.

To find out more about how a career with Magnox could be a life changing experience for you contact:

For Magnox South

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