

Site Stakeholder Group

Sizewell B Report – September 2016



Station Director's Report - September 2016

1. Safety performance and staffing

Station Safety Performance

During the period of the report there has been:

- No injuries to staff
- No nuclear reportable incidents
- No environmental incidents

Staffing at Sizewell B

We currently have 529 EDF Energy staff; this includes 16 apprentices, with 4 new apprentices joining us at the end of August and 250 year round contracting partners.

2. Generation

The station has operated at around full power during this period.

Please click on the link below that provides a daily update of the status of our eight nuclear power stations. The link will show which nuclear reactors are in service and what they were generating at the time the information was updated. You can also see which reactors are out of service, what the reasons are and when we expect them to return to service. In addition, we have included the expected timing of the next statutory outage of each nuclear reactor.

<http://www.edfenergy.com/energy/power-station/daily-statuses>

3. Company Update

EDF Energy Renewables starts work on the Blyth offshore wind farm

EDF Energy Renewables is to build a new offshore wind farm off the coast of Blyth in Northumberland.

Construction work for the project has begun onshore and offshore work will start in 2017 to install five turbines of 41.5MW in capacity. The turbines, will provide enough low carbon electricity to power 33 000 homes. At its peak there will be around 200 people working on the project.

Tenants benefit by award-winning renewable heating partnership

Over the past 18 months, EDF Energy and Kensa Heat Pumps have helped tenants in Devon and Cornwall save money on their energy bills through an award-winning partnership.

The unique commitment between EDF Energy and Cornwall based Kensa Heat Pumps has helped social landlords to replace inefficient electric heating and oil fired systems.

It is projected that the partnership will see cost savings of £24,000 around £325 per household along with significant carbon reductions.

Hinkley Point C: EDF's Board of Directors approves the final investment decision

At its meeting on 28 July 2016, EDF's Board of Directors made the final investment decision and gave the President the authorisation to ensure its full execution in the framework of the signature process of all the contracts and agreements necessary to build the two nuclear reactors at Hinkley Point C (HPC) in Somerset, in south-west England.

Following this decision, the conditions have been met to allow EDF to sign the contracts with the British Government, EDF's historic partner China General Nuclear Power Generation (CGN), and the main suppliers of the project.

This is a hugely important milestone for the project, as it is for EDF Group and EDF Energy. It means that the company is now ready, but there are still some steps before these signings can take place.

4. Sizewell B and community news

International review highlights good safety practice at Sizewell B

The International Atomic Energy Agency (IAEA) review of Sizewell B has been published following a visit by industry experts to the station last year.

The IAEA has carried out reviews at 188 nuclear stations since the programme started in 1982. These reviews are carried out by an Operational Safety Review Team (OSART) which is appointed by the IAEA and comprises nuclear industry experts from across the world.

The three week long visits enable a thorough review of operational safety at nuclear power stations and promotes the continuous development of the industry by ensuring IAEA safety standards are met and good practices shared across the world. The reviews culminate in a detailed report being produced which highlights areas of good practice and recommendations for improvement.

The review carried out by 15 industry experts in October 2015 at Sizewell B highlighted a number of good areas of performance at the station including; the Nuclear Leadership Programme highlighting the inclusion of workshops to train current and emerging leaders on important nuclear leadership principles, and; the station's Periodic Safety Review (PSR2) process which they considered to be comprehensive, rigorous and based on benchmarking with a wide range of modern safety standards. The well developed and documented process to ensure that emergency exercises comprehensively cover the situations that could arise during emergencies was also recognised.

You can view the OSART report on the link below:

<https://www.gov.uk/government/publications/report-of-the-operational-safety-review-team-osart-mission-to-sizewell-b-nuclear-power-station-5-22-october-2015>

Sizewell B new apprentices

On 26 August this year's group of 51 apprentices joined EDF Energy, which includes four apprentices who will be based at Sizewell B.

The four new recruits for Sizewell B all came from local schools. Kieran Butler, 20, studied at Alde Valley Academy in Leiston and Lowestoft College, Bethany Grant, 21, came from Westbourne Academy in Ipswich, Sophie Mason, 17, from Chantry Academy and Suffolk New College in Ipswich and Bailey Payne, 18, from Lynn Grove Academy in Great Yarmouth and Lowestoft College.

Then it is off to Ullswater in the Lake District on Monday 29 August for an outward bounds course where they will meet other EDF Energy apprentices from power stations across the UK. Team building will be encouraged while they take part in outdoor activities which will culminate in climbing Helvellyn.

The following week on Tuesday 6 September, they travel to HMS Sultan to start studying, learning basic engineering skills in the first year, before specialising into their trade in the second year.

The apprentice recruitment coincides with EDF Energy's national campaign to change teenage girls' perceptions of science and inspire them to pursue science-based careers.

Although the company's generating stations already have a number of successful female apprentices, EDF Energy wants to attract more.

Sizewell B support for Aldeburgh carnival

Sizewell B apprentices joined Aldeburgh carnival in August as EDF Energy boosts its support for the popular annual event in the seaside town.

The power station has once again pledged £500 to boost carnival coffers and has supported the committee with the event organisation. Members of the Sizewell B visitor centre team also helped to judge this year's carnival procession. Apprentices from the Sizewell B maintenance team once again pitched in as stewards to ensure the safety of visitors and the carnival procession. The apprentices helped with traffic management and ensured that the float parade passed safely through Aldeburgh.

The apprentices were able to volunteer in company time as it was part of an EDF Energy initiative called 'Helping Hands' which allows employees to take two paid days off a year to help out in the local community or for an environmental cause.

Science in the summer holidays

Sizewell B had a fun packed agenda for young visitors to the power station, in a bid to bring science to life over the summer holidays.

Over one hundred and fifty local children took part in the free sessions which were held at the power station visitor centre throughout August.

Each week a new science-based workshop was rolled out for visitors in addition to the activities already on offer in the exhibition centre and through the tour of the power station.

In the first session children made butterfly habitats whilst exploring science and nature. Further sessions, engineering was brought to life by making flying machines from recycled junk and interactive workshops that introduced magnetism, the changing forms of matter and the science behind the weather. There was a specific autism and disability adapted session where young people could explore sensory science.

Communities benefit from Sizewell B and Galloper Wind Farm Limited community fund

A new community fund was launched in Suffolk in the spring thanks to Sizewell B and Galloper Offshore Wind Farm.

The Leiston and Sizewell Community Fund will be distributed over a seven year period. Over £85,000 will be made available for community projects and applications are welcome throughout the year. The fund will be administered by Sizewell B and allocated by a committee formed by representatives from Sizewell B, Galloper Offshore Wind Farm and Community Action Suffolk.

Summaries of Projects Awarded to date totalling £32,700

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| • Leiston Town Football Club - grounds equipment | £5000 |
| • Leiston Town Athletic Association – improve sustainability | £5000 |
| • Leiston Shining Stars Nursery – sensory gardens | £1000 |
| • Leiston Town pastor scheme | £4000 |

• Leiston Young People Taking Action CYDS – Young Parents Group	£2000
• Middleton Cricket club – New cricket square	£5000
• Aldeburgh & Thorpeness Ladies Rugby team kit	£700
• Offshoot Foundation – film making workshop in Leiston CYDS	£1000
• Campsea Ash Station House Community Connections – education desks	£5000
• Theberton and Eastbridge portable mini speed device	£2000
• Saxmundham Smile café – equipment and training	£2000

Application forms are available from niki.rousseau@edf-energy.com www.edfenergy.com/energy/power-stations/sizewell-b

Radioactive discharges from Sizewell B Power Station during our fourteenth Refuelling Outage

The Refuelling Outage started when the station was disconnected from the National Grid at 09:00 on 15 April 2016 and ended with reconnection to the National Grid at 01:40 on 17 June 2016.

To recap from the information submitted with the last three Refuelling Outages' data: only Noble (inert) Gas discharges to air are assessed using a "real time" technique, permitting the half-hourly data points requested by the SSG. Other radionuclides require sampling media (e.g. filters) to accumulate radioactivity over a period of time, usually a week, following which they are taken to a laboratory for analysis. The quantities of radioactivity being discharged are so low that shorter sampling periods lead to results that are below the limit of detection for the analytical technique; this presents less meaningful information.

The Noble Gas data for the Unit Vent and Radwaste Building stacks are shown on **Appendix 1 chart**, on the same axes as the data from Gundremmingen Power Station, against which I believe you wish to draw a comparison. Once again the instruments registered at their limit of detection values throughout the outage. **Appendix 2 chart shows** this data on an expanded y-axis, so that the minute variations can be seen.

There is a third discharge stack, that for the Gaseous Radioactive Waste System. The results are shown on **Appendix 3 chart** because the limit of detection for the Noble Gas instrument is much higher than the other two. Nevertheless, the flow rate from this stack is very low and furthermore it is shutdown with no flow for a large part of the outage, which accounts for the gaps in the data shown on the chart. Taken together this means that the amount of Noble Gas radioactivity discharged from this stack is about ten times lower than for the other two stacks. The slight increase in the indication on 16 April is within the normal range of variation for this instrument and occurred in a period when clean nitrogen gas was being purged through the system.

All of the data has already been reported to the Environment Agency as part of the routine monthly Returns. **Appendix 4 table** showing the data is included and represents the period 11 April to 21 June 2016. The table also shows the Quarterly Notification Levels and Annual Limits, for comparison.

Additionally, this year the SSG has expressed interest in the amount of radioactivity released from the Main Steam System through the Power Operated Relief Valves (PORVs) and the Main Steam Dump System when these are used to relieve pressure in the system during the Outage. These are considered to be 'Minor Outlets' under the site's Environmental Permit due to the small amounts of radioactivity discharged through these routes. They were only used during return to service of the plant in the period 6 June to 16 June 2016. 158 MBq of tritium was discharged to air from the PORVs and Main Steam Dump System. It might be useful to compare the 158 MBq discharged from our PORVs to 1000 MBq historically found in luminised timepieces or 10,000 MBq in compasses. Fishing floats are commercially available and data from Germany in the 1990s indicates up to 28,000 MBq per float was used. Other than tritium, no other radioactivity could be detected being discharged from this route.

Radiation levels in the UK are monitored regularly and results are published from the Environment Agency and Food Standards Agency. You can view the results on the link below:

<https://www.gov.uk/government/publications/radioactivity-in-food-and-the-environment-2014-rife-20>

Contacts:

Marjorie Barnes, South East External Communications Manager
Tel: 07515295488, 01728 653378
Email: Marjorie.barnes@edf-energy.com

Niki Rousseau, Community Relations
Tel: 01728 653258
E-mail: niki.rousseau@edf-energy.com

edfenergy.com