Site Stakeholder Group

Sizewell B Report – April 2018

Station Director's Report – April 2018

1. Safety performance and staffing

Station Safety Performance

We measure our safety performance against top tier indicators, including nuclear reportable events, environmental events, and staff and contract partner recordable injuries. 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 545 including 16 Apprentices, 3 technical trainees and 3 Industrial Placements and 250 year round contracting partners.

2. Generation

Steam Generator work during refuelling outage 15

On Wednesday 31 January 2018 Sizewell B power station returned to service following its fifteenth planned refuelling and maintenance outage

This shutdown was extended slightly to allow repairs to our steam generators. During the shutdown, the team carried out maintenance inspections, replacing the drain line, repairs and testing on all four steam generators to ensure their safe reliable operation.

The dates of planned outages and the return to service dates are publicly available and can be accessed on the internet at https://www.edfenergy.com/energy/power-station/daily-statuses.

Turbine Generator 2 pipework repair

On Tuesday 20th February 2018 Turbine Generator 2 at Sizewell B power station was brought offline to complete a repair to a section of pipework. A small hydrogen leak was detected, on original components of the turbine and a conservative decision was made to take the turbine offline to complete the repair.

Turbine Generator 1 was not affected and continued to supply power to over 1million homes and businesses.

Turbine Generator 2 was returned to service on Monday 05 March following the repair to a section of its pipework.

Sizewell B power station is now generating at full capacity and is back supplying safe, low-carbon electricity to meet the needs of over 2 million homes.

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

The Refuelling Outage started when the station was disconnected from the National Grid at 09:00 on 3 November 2017 and ended with reconnection to the National Grid at 01:17 on 31 January 2018.

To recap from the information submitted with the last four Refuelling Outages' data: 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 exception on this occasion was that the data system was taken out of service for maintenance for just under five days in November, during which an alternative Noble Gas sampling technique was used. As no radioactivity was detected during this period the results shown on the attached graphs interpolate the data during this period, conservatively assuming that discharges continued at the same rate.

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.

The third discharge stack that we have reported on previously has not been used since July 2017. The discharge from the Gaseous Radioactive Waste System is now routed into the Radwaste Building Stack and discharges from that stack are included in the aforementioned charts.

All of the data has already been reported to the Environment Agency as part of the routine monthly Returns. **Appendix 3 table** showing the data is included and represents the period 30 October 2017 to 30 January 2018 inclusive. The table also shows the Quarterly Notification Levels and Annual Limits, for comparison.

Additionally, 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 because of the very small amounts of radioactivity discharged through these routes. They were only used during return to service of the plant in the period 25 January to 30 January 2018. 505 MBq of tritium was discharged to air from the PORVs and Main Steam Dump System, compared to 86,000 MBq of tritium to air from the 'Major Outlets', the two discharge stacks described above. 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.food.gov.uk/science/research/radiologicalresearch/radioactivityinfood/radioactivity-in-food-and-the-environment-rife-report-2016/radioactivity-in-food-and-the-environment-rife-report-2016

3. Sizewell B and community news

International review confirms good safety practice at Sizewell B

The International Atomic Energy Agency (IAEA) has confirmed the successful completion of its review of Sizewell B.

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 group of industry experts concluded the OSART mission had been successful after the follow-up mission to Sizewell B nuclear power station in April 2017. The Department for Business, Energy and Industrial Strategy welcomed the follow-up report from the IAEA and congratulated Sizewell B on the number of good practices identified.

A link to the OSART report and Government response can be found here: https://www.gov.uk/government/publications/operational-safety-osart-mission-to-sizewell-b-nuclear-power-station-follow-up-report

Testing of Sizewell B Emergency Arrangements

Sizewell B will be testing our emergency arrangements again throughout 2018.

During the tests of our emergency arrangements we will need to sound our internal sirens - which you may hear and there may also be increased visibility of the emergency services during this time. EDF Energy's Emergency Response vehicles, held at the Emergency Response Centre in Leiston, may also be used during these times.

I would like to apologise in advance for any inconvenience these tests may cause, but would stress that these are internal sirens for Sizewell B staff only and there is no need for you to take any action.

The exercises to test our emergency arrangements will be carried out on the following dates in 2018:-

- 02 May
- 09 May
- 16 May
- 27 June
- 07 November
- 14 November
- 21 November

Sizewell B chosen in top 200 influential projects that shaped the world

The Institution of Civil Engineers (ICE) has announced Sizewell B as one of the top 200 influential people and projects, past and present, which illustrate how civil engineering has shaped the world and transformed people's lives for the better.

To mark the ICE's 200th anniversary, and to support Government's Year of Engineering, the Institution is highlighting 200 inspirational and world-changing projects from around the world throughout 2018. Nominated by the ICE's members and selected by an expert panel, the chosen projects illustrate the breadth and depth of civil engineering's impact.

Sizewell B joins the 200 projects which will be published throughout the year on the What Is Civil Engineering? pages of the ICE website. What is Civil Engineering? will not only host these projects but can also be used as a career guidance tool for those hoping to pursue a career in civil engineering. Once inspired by the projects being produced each month, there is comprehensive advice and guidance on how to become a civil engineer no matter what level of education someone has, or what stage in their career they have reached.

This platform has been designed to help promote the career of civil engineering after it was revealed that only 45% of adults know what the career entails and only 35% of young people could tell you what a civil engineer does.

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