



Site Stakeholder Group

Hunterston B Station Director's Report
Period: February to April 2016

1. Safety and Environment

Station Industrial Safety Performance

There were no Lost Time Incidents* (LTIs) reported by EDF Energy or our Contract Partner staff during this period, The Total Recordable Injury Rate is currently 0.95 which is 0.5 less than the last report.

It has been 2940 days since the last EDF LTI and 2928 days since the last Contract Partner LTI at HNB. That is more than eight years.

There were no Industrial Very Significant Incidents or Serious Incidents reports in this period.

Within this period we successfully completed the 2016 R4 Interim outage, where our safety performance was exemplary. We had zero nuclear, environment or industrial safety top tier events and no accidents.

In April we rolled out a "Slips, trips and fall" safety campaign, which was really well attended, these regular campaigns will contribute to us delivering our ambition of "Zero Harm".

Reactor 4 Interim Outage

Reactor 4 was taken offline for its planned interim outage on Friday 15th April. The work was completed and the unit was returned to service on the evening of Sunday 1st May 2016. The outage took 16 days.

During the outage we completed several maintenance activities and inspections which all were successfully carried out.

The main purpose of the outage was to gain more data and information on the graphite core aging process.

This is the second graphite core inspection EDF Energy has carried out this year; the first was on Reactor 3 at Hinkley Point B in February. The findings from both inspections have strengthened and supported our understanding of graphite core behaviour.

The inspection monitored the two graphite bricks which were found to have cracks during the Reactor 4 outage in October 2014. As expected, there has been no significant increase in their size since the last outage. As I explained at the meeting of the SSG on 3 March, as the reactor continues to operate further cracks are expected to occur due to the ageing of the graphite. During this inspection we identified two additional cracked bricks as a result of keyway root cracking. This is in line with our expectations at this stage of the reactor life and there are no safety implications.

The graphite core of a reactor is made up of around 6,000 graphite bricks which are all connected together. The structure is highly redundant and therefore a large number of bricks could crack before there are any safety concerns. This is covered within the safety case and inspections of the core are undertaken at regular intervals to ensure we always understand the plant in detail.

Our understanding of graphite is supported by an extensive research and development programme. There has also been significant investment in the plant to further improve safety margins (the construction of a seismically qualified nitrogen plant and the installation of increased articulation control rods).

The observations were anticipated and are in line with our understanding so our view of the best estimate lifetime planning date of 2023 has not changed.

Environmental Safety

There have been no significant environmental events in the period.

A minor event was recorded. Diesel fuel spilled from a tank into a secondary container due to a ball float valve failure. The spill was cleared up, the ball float valve was replaced and there was no impact on the environment. All fuel oil tanks on site are protected by secondary containers also known as bunds. They are inspected for integrity on a frequent basis. The fuel supplies to diesel generators are important to maintain essential stand-by generation capability - this was not compromised by the fuel spill event.

During May, the site is being inspected by an external company against the International Standards for Environmental Management, Quality, and Industrial Safety (ISO 14001, 9001 and 18001). We have maintained this certification for many years and the Standards require a continuous improvement environment.

Gaseous and Aqueous discharges arising from normal plant operations remain at levels well below those authorised by SEPA.

Work to process and consign solid Low Level wastes has continued in the period as part of normal operations.

The ongoing programme of off-site environmental monitoring and radiation surveys in the district has continued as normal and continues to demonstrate that the radiological discharges from the station have a negligible impact on the local environment. Reports are made quarterly to SEPA, detailing the samples and results of analysis performed.

Radiological Protection

There were no reportable radiological protection events during this reporting period. During the reporting period (February 2016 to April 2016) the actual collective dose was below plan; 9.6man.mSv against a plan of 20man.mSv. The reduction in collective dose is due to dose saving during specific projects and an overall dose reduction during the interim outage due to the scope of work. All work is fully reviewed and justified in order to ensure all dose received were ALARP*.

The highest individual annual dose for the reporting period was 0.21mSv for an employee and 0.16mSv for a contractor**.

Explanatory notes

- * ALARP (As Low As Reasonably Practicable) - it is a requirement of IRR99 to apply ALARP. This involves justifying and optimising the dose, as well as remaining within the dose limits.
- ** The annual radiation dose limit for a radiation worker under U.K. legislation (Ionising Radiation Regulations 1999 (IRR99) is 20mSv (milliSievert) in a calendar year. To put this into context, the average radiation dose to the U.K. population from all sources is 2.6mSv. The collective dose for a group of workers is usually measured in man.mSv (i.e. the total of the doses received by each member of a group).

Dose Information (1 February 2015 to 1 May 2016)

- 431 employees received a total collective dose of 7.17man.mSv between them
 - The mean dose received by employees was 0.017mSv
- 312 contractors received a total collective dose of 2.24man.mSv between them
 - The mean dose received by contractors was 0.004mSv

Emergency Arrangements

There have been no activations of the emergency arrangements during the period but the station has maintained a state of readiness.

A successful safety exercise was held in March. A number of positive elements were identified, particularly the close working relationship with the emergency services, along with some learning opportunities. These will be built into future training exercises.

The focus for the next period is the annual security regulatory exercise. This takes place in June and preparations are ongoing.

2. Generation

R3/TG7

February: The unit was taken offline for turbine balancing activity on 1 February. It was returned to service on 4 February and load raised to optimum power for the remainder of the month.

March: The unit operated continuously at optimum power until 16 March when output was reduced for planned Low Load Refuelling. Refuelling was completed on 18 March and load was raised to optimum power for the remainder of the month.

April: The unit operated continuously at optimum power throughout the month.

R4/TG8

February: The unit operated at optimum power until 25 February when output was reduced for planned Low Load Refuelling. Refuelling was completed on 27 February and load was raised to optimum power for the remainder of the month.

March: The unit operated continuously at optimum power until 3 March when output was reduced for planned Low Load Refuelling. Refuelling was completed on 4 March and load was raised to optimum power for the remainder of the month.

April: The unit operated at optimum power until 15 April when the unit was safely shutdown for a planned Inspection Outage.

3. Company Update

EDF Energy Named in 'Top 50 Employers for Women' List

EDF Energy has been named as a leader on workplace gender equality by being included in The Times Top 50 Employers for Women 2016.

The [list](#) is published in partnership with Business in the Community, the Prince's Responsible Business Network, as part of the charity's [Responsible Business Week](#).

EDF Energy is the only inclusion from the energy sector in 2016.

Fiona Jackson, Head of Strategic Resourcing at EDF Energy, said: "To recruit and retain the best and most diverse talent, we know that creating a culture of inclusion is fundamental.

"Our employees and networking groups have been at the forefront of driving change and we're delighted that their efforts have been formally recognised by Business in the Community.

"There is still plenty of work to be done. Given the STEM recruitment challenges that we face as an industry, we are focusing on innovative ways to appeal to more diverse talent in order to expand our recruitment pool.

"We firmly believe that having a more diverse workforce equips us better to face the challenges and grasp the opportunities ahead, and to innovate and perform much better."

World nuclear industry gathers to share safety expertise

Delegates representing 78 organisations from around the world gathered in London to share their expertise and experience in nuclear safety.

They attended the second Nuclear Safety Symposium hosted by EDF Energy and EDF with the support of the World Association of Nuclear Operators (WANO).

The event was opened by EDF Energy Chief Executive Vincent de Rivaz and follows the success of the first symposium held in Paris in 2014.

The symposium was a demonstration of WANO's aim of maximising the safety and reliability of nuclear power plants worldwide by working together to assess benchmark and improve performance through mutual support, exchange of information and emulation of best practice.

The issues covered at the symposium included the growing importance of nuclear energy to meet the demand for reliable low carbon electricity, the worldwide new build renaissance, and the safe life extension of existing plants.

4. Community

Hunterston B Team takes on the Five Ferry Challenge

A group of EDF Energy staff and contractors from Hunterston B power station have completed a gruelling cycle challenge to raise money for a charity that helps the families of sick children.

The team of eight took on the Five Ferry Challenge which incorporates four cycle legs and five ferry crossings over the course of one day in and around North Kintyre and the Firth of Clyde.

The route, which is known for its breathtaking scenery, takes in some hilly terrain and the cycle legs cover a distance of 51 miles.

They have raised more than £1400 for Ronald McDonald House in Glasgow. The charity provides a home away from home for the families of sick children so that they can stay nearby while their child is in hospital.

David Wilkie, who helped to co-ordinate the station team, said: "We set ourselves a target of raising £1000 so we are thrilled to have been able to exceed that by some distance. It was a tough challenge, lots of hills and some hail along the way, but we had a great time and it was all for a great cause. The niece of one of the team has had treatment for cancer in the U.S. and her parents stayed in a Ronald McDonald house they were there. That is why we decided to raise funds for the house in Glasgow."

The team started at Weymss Bay, finished at Ardrossan and took in places like Rothesay, Portavadie, Lochranza, Tarbert and Clonaig along the way.

You can find out more about the Five Ferry Challenge at www.5ferrychallenge.com

5. Staffing Update

The station currently employs 550 full time staff, this includes 23 apprentices. We are currently recruiting in the areas of Operations Engineers, Operate Technicians, Maintenance Technicians and Group Heads.

Hunterston B vacancies are displayed on the www.edf-energy.com web site

For more information about anything in this report or other station issues, contact:

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