Site Stakeholder Group

Hunterston B Station Director's Report

Period: November 2017 to January 2018

1. Safety and Environment

Key Update

Nuclear safety drives everything that we do and we closely monitor the graphite cores at Hunterston B during the course of day-to-day operations as well as through scheduled outages.

Reactor 3 will be taken offline on 9th March for a planned interim outage. This forms part of the graphite inspection plan agreed with the ONR and will involve inspection of the reactor core as well as a range of other maintenance and inspection work which can be carried out while the unit is offline.

Station Industrial Safety Performance

During January, in collaboration with one of our contract partners, we delivered "Safe Start" to more than 500 staff. The campaign consisted of a trigger moments video and a virtual reality production that was filmed at Hunterston B using contract partners and station staff. The training was well received by staff; giving a renewed focus to safety for 2018.

There were no lost time incidents, medical treatment or restricted work injuries reported by EDF Energy or our Contract Partner staff during the reporting period, the Total Recordable Injury (TRI) rate is currently 0.52.

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

It has been almost 9 and a half years since the last Lost Time Incident (LTI) at Hunterston B (EDF Energy staff: 3466 days, Contract Partner: 3454 days).

There was a significant reduction in work related injuries during 2017; in 2016 there were 13 accident book entries, in 2017 there were seven. This improved performance was achieved through staff engagement and team work coupled with high standards of nuclear professionalism and accountability.

Environmental Safety

There have been no significant environmental events in the period.

Radioactive gaseous and aqueous discharges arising from normal plant operations remain at levels well below those authorised by SEPA. By agreement with SEPA we continue to report in accordance with the recently revised authorisation requirements.

Work to process and package solid low level wastes has continued in the period as part of normal operations and consignments have been made to Cyclife.

The programme of off-site environmental monitoring and radiation surveys in the district has continued as normal and demonstrates 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.

For 2017 the total dose received was below plan at 96% of the dose planned for the full year. The collective dose during the reporting period was above plan (see table below). Collective dose is pre-planned on expected work for each year based on scheduled maintenance, outages and routine operations. A breakdown of dose received is shown below (along with a comparison of relevant dose statistics).

All work is fully reviewed and justified in order to ensure all doses received were ALARP (As Low As Reasonably Practicable). This involves justifying and optimising the dose, as well as remaining within those dose limits.

Differences between the actual and planned dose can be down to a range of factors including changes to the work programme, development of new techniques for carrying out work that will result in a lower dose and the deployment of new equipment.

The radiation dose of each worker is assessed individually by an electronic personal dose meter. A computer database keeps records for each worker. Exposure is constantly monitored and ultimately compared with the levels specified in the Ionising Radiation Regulations (2017) which are the UK Health and Safety legislation that applies to work with radiation.

Radiation Dose to workers (Nov 2017 - Jan 2017)		
Planned collective dose	30.0man.mSv	
Actual collective dose	32.2man.mSv	
	Employee	**Contract Partner**
Total Dose	30.97man.mSv	1.23man.mSv
Average individual dose	0.06mSv	0.01mSv
Highest individual dose	2.99mSv	0.09mSv
Individuals	523	217

Chest X-ray	Transatlantic Flight	CT scan	Average UK annual dose to public	EDF Energy Dose Restriction Level	UK legal dose limit for radiation workers
0.014mSv	0.08mSv	2.0mSv	2.6mSv	10mSv	20mSv

Explanatory notes:

- mSv: milliSieverts (SI unit of dose received by an individual)
- man.mSv: The collective dose for a group of workers (i.e. the total of the doses received by each member of a group).

Emergency Arrangements

On the 23rd November we completed a joint security and nuclear themed Level 1 exercise which was assessed by the ONR and the company's Independent Nuclear Assurance team. This was deemed to have been an adequate demonstration of the stations emergency arrangements.

Training, drills and exercises have continued with various themes, including fire, nuclear and chemical.

Exercises at Hunterston B are very well supported by the local emergency services. On exercise days you may see emergency services waiting on local roads for confirmation that the exercise has commenced. This is to enable them to attend in a timely manner and make the most of their participation.

2. Generation

Month/Unit	**R3/TG7**	**R4/TG8**
November	• The unit operated continuously at optimum power throughout the month.	• 13 Nov: The unit returned to power following a planned Statutory Maintenance Outage and operated at optimum power for the remainder of the month.
December	• The unit operated continuously throughout the month. • Power was reduced for Low Load Refuelling from 12th-14th.	• The unit operated continuously throughout the month. • Power was reduced for Low Load Refuelling from 19th-20th.

January	• 5th: The unit came safely offline following an electrical fault. • 7th: The unit returned to service. • 23rd: The unit came safely offline due to a fault on an electrical motor and fan within the reactor side of the system. • 27th: The unit returned to service and operated at optimum power for the rest of the month.	• The unit operated continuously throughout the month. • Power was reduced for Low Load Refuelling from 12th-13th.

3. Company Update

Simone Rossi, the chief executive of EDF Energy, has confirmed that Hinkley Point C is 'on track'.

Mr Rossi said that the project was very important to the UK, and that the station would be in service by 2025.

He said: "There are almost 3,000 people on the site and there will soon be more than 5,000 working there, on a project that is on track for its next big milestones.

"We've moved more than four million cubic metres of earth – that's like digging a hole two and a half times as big as the Millennium Stadium in Cardiff. We are already installing the huge sea water cooling pipes.

"One of the main focuses at site is what we call J-zero – when we start building the power station's structures above ground.

"That can only happen once the foundations are in place for the first unit. All our 2018 goals will help us to achieve this major milestone on schedule by June 2019.

"Beyond J-zero, our goal is to put the first unit into service by the end of 2025."

4. Station News

Management Team Update

Colin Weir has returned to his role as Station Director at Hunterston B after a period as acting Chief Nuclear Officer for the regional business which includes Hunterston B and three other stations.

Plant Manager Paul Forrest has moved to take up the role of Plant Manager at Torness power station following management team changes there. John Sandford is acting Plant Manager at Hunterston B while a recruitment process takes place.

Special Honours for Hunterston B Apprentices

Two Hunterston B apprentices have been singled out for special honours at EDF Energy's annual apprenticeship graduation ceremony in Worcestershire.

Rachel Pellegrini from Ardrossan and Conor Logie from Irvine received special awards from Simone Rossi, EDF Energy's new CEO, at the annual apprentice graduation ceremony.

They were joined by 57 other apprentices from across the business including fellow Hunterston B apprentices Ruairigh Grayston, Megan MacMaster, Ross Stevenson, Jordan Walker.

All six of the power station's apprentices spent four years on the company's highly-regarded Engineering Maintenance Apprenticeship Scheme.

Conor was named the Hunterston B apprentice of the year for his performance over the past 12 months. Rachel received the company 'Going the Extra Mile' award. This award recognises an apprentice who has gone over and above what would normally be expected in their role.

Rachel's professionalism and positive attitude along with her STEM work in schools and her active support of the company charity helped her secure the award.

Conor said: "I have really enjoyed the apprenticeship programme over the past four years so I feel honoured that my hard work has been recognised. I can't recommend the scheme highly enough. I have developed so many new skills since I started and I am looking forward to keeping up the hard work in my role as a full-time technician."

Rachel said of her award: "I am grateful to receive this award and I look forward to progressing my career within the company"

The awards were presented by newly-appointed EDF Energy Chief Executive Simone Rossi in front of an audience of graduating apprentices and their families.

There has been a marked increase in young women taking up the apprenticeship in engineering and maintenance across the country.

CEO Simone Rossi said: "This year around 35 per cent of our intake is female – far above the average for STEM apprenticeships."

"This is something that is very important to us, not just because we are firm believers in the power of having a diverse and inclusive workforce, but also because we know that there are many, many highly capable young women who for whatever reason are being deterred from considering a career in engineering and science."

"We are trying to play our part in helping to make these careers more attractive and I am very pleased that we have just relaunched our 'Pretty Curious' campaign in an exciting partnership with the new 'Star Wars' film that features a female engineer as its lead character.

"This partnership will help us to reach out still further to talented people – boys and girls - who maybe had not previously seen themselves working in an industry like ours."

In November, Hunterston B launched its search for their 2018 apprentices. The training scheme starts with two years at the world-renowned training base at HMS Sultan near Portsmouth. The apprentices spend the final two years at their home bases where they get on-the-job training.

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

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5. Glossary of terms

Term	Definition
Unit	A unit refers to one of the reactors at the power station and its generating turbine
Nuclear reportable event or incident	Nuclear reportable events are events reported to the Office of Nuclear Regulation (ONR) in compliance with EDF Energy's nuclear site licences.
Environmental event or incident	Environmental events arise from wastes or discharges above permitted levels or breaches of permitted conditions.
Lost Time Incident (LTI)	When a member of staff injures themselves at work, and is absent from work for one day or more, this is referred to as a lost-time incident (LTI)
Total Recordable Incident Rate (TRIR)	Total Recordable Incident rate is the total number of Lost Time Incidents, Medical Treatment Cases, Restricted Work Cases and which is divided by the amount of total amount of man-hours and then multiplied by 1 million. This indicator is a 12 month rolling figure. ((LTI+MTC+RWC)/manhours)x1000000=TRIR 0.54 represents 1 Restricted Working Case during December 2015
Outage	A period during which a reactor is shut down. The periodic shutdown of a reactor including for maintenance, inspection and testing or, in some cases, for refuelling is known as a planned outage. In the UK, some planned outages are known as statutory outages and are required by the conditions attached to the nuclear site licence needed to operate the station. Unscheduled shutdown of a reactor for a period is known as an unplanned outage.