

# Site Stakeholder Group Report

**Peter Evans, Hinkley Point B Station Director**  
**Friday 29 October 2021**



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# 1. Safety and station issues

After 11 years of working at Hinkley Point B and seven years of being a member of the Site Stakeholder Group, this meeting will be my last before I retire.

My time working here in Somerset has undoubtedly been the highlight of my 44-year career. Working at the power station has been a big part of my life and I am certainly going to miss the people and everyone I have worked with. Deciding to retire was the most difficult decision I have ever made and on my last working day in mid-December, I will be full of emotions, but I know deep down the time is right. Even though I am leaving the station, I am not leaving the local area as I plan to stay living in Somerset. I would also like to take this opportunity to thank you as a member of the Site Stakeholder Group for your contributions and questions for me over the past seven years. The group is a central part of the station's journey and success, and I know our openness, transparency and valued dialogue will continue with my successor and as we approach and enter the defueling stage of the power station's operational life.



So for the final time, on behalf of the team at Hinkley Point B, thank you for giving me the opportunity to present my report and operational update.

We measure our safety performance against top tier indicators, and I am pleased to report last weekend we passed 15 years since our last Nuclear Reportable Event. This fleet leading performance is comparable to some of the best performing nuclear power plants in the world. In terms of industrial safety, it has now been five years since the station's last lost time incident to a member of staff, and over one year since the last lost time incident to a contract partner. Since the February meeting, there have been 7 minor first aid injuries at the site, all of a very minor nature.

On 14 September 2021 I wrote and notified you of our first reportable environmental event in over 12 years, after regrettably approximately 10 litres of transformer oil found their way through our defences and off site following a fire on generator transformer 7. More detail on the specific event on 19 August and associated recovery actions are contained later in this report. As you know from previous Site Stakeholder Group meetings, Hinkley Point B prides itself on having the highest safety and environmental standards. Even though our defences and systems contained 99% of the transformer oil, an uncontrolled release of any type of oil is totally unacceptable and it must never happen again. I am bitterly disappointed by this completely unforeseen event, and we have conducted a thorough investigation. The Office for Nuclear Regulation (ONR) and the Environment Agency have been kept fully updated on the event and our subsequent recovery actions.

Staff and other resources from both Hinkley Point A and Hinkley Point C sites supported our response to the event, and I would like to take this opportunity to thank them both for their support and help. This was the first time in a real event for us all to work together, and the benefits of this were clear. Learning from this is being captured as part of the ongoing investigation process and a workshop is being planned for emergency leaders from all three sites to develop further understanding of each sites' arrangements and where future joint working can be enhanced.

At the time of the generator transformer 7 fire, reactor 3 automatically and safely shutdown. The fire system in the transformer compound instantly activated, as designed, and extinguished the fire within seconds. In line with our standard emergency arrangements, five fire appliances, and three support vehicles, from Devon and Somerset Fire and Rescue Service attended the site as a precautionary measure.

Following the event we have forensically investigated why the transformer failed so unexpectedly, and we have traced the fault to the occurrence of *electrical tracking* on a tap changer internal insulation component. (Note - electrical tracking is a breakdown on the surface of an insulating material where an initial exposure to electrical arcing heat carbonizes an area of material). We have now replaced the transformer phase tank which contained the faulty tap changer, and we are in the process of checking all similar tap changers across the fleet to prevent a reoccurrence.

With reactor 3 off line, we took the opportunity to bring forward its planned maintenance and graphite inspection outage. We completed inspections on 31 graphite channels, and I am pleased to confirm these results were within expectations and the graphite continues to behave as experts have predicted. Reactor 3 was returned to service on 25 October 2021 to start its final 6 month generation run.

Reactor 4 has been online since 11 April 2021 and has operated at nominal full load throughout this reporting period. Station output for the period between 14 June 2021 to 16 October 2021 was 2.061 TWh (one terawatt equals 1,000,000 megawatts: one terawatt-hour represents one hour of electricity consumption at a constant rate of 1 TWh). We will be taking Reactor 4 off line in November for its final routine graphite inspection outage, before returning it to service for its final 6 month generation run.

At June's meeting, Mike Davies, Hinkley Point B's Lifetime Transition Manager, gave an update on EDF's AGR defueling programme and the preparations the power station is making for end of generation. These preparations are progressing, and we continue to operate with defueling and decommissioning in mind. The station will move into the defueling stage of its life no later than 15 July 2022, and this will signify the end point for the power station after more than 45 years of quietly powering the nation with low carbon electricity. We are doing everything we can to ensure we have a smooth transition into defueling, and we are continuing to work closely and engage with our staff and contract partners about our defueling plans and the future. There is much change to come at Hinkley Point B over the coming months. However, as I have said before, this is a moment for us to celebrate what we have achieved, and we must be proud of our history.

We continue to review the timing of making a planning application for waste facilities on Hinkley Point B. This is dependent on ongoing discussions between EDF and Magnox on the synergies between A and B stations, the scope and feasibility of sharing waste management facilities.

Auditors from Lloyd's Register Quality Assurance (LRQA) remotely completed their tenth annual LRQA surveillance at Hinkley Point B in early August, and recommended the station's certification continues against the management system standards for Quality (ISO 9001:2015), Environment (ISO 14001:2015), edfenergy.com Occupational Health and Safety (OHSAS 18001:2007) and Asset Management (ISO 55001:2014).

## 2. Environmental update

As mentioned earlier in my report, on 19 August a generator transformer tap changer experienced an internal electrical fault resulting in a fire and phase tank failure which released approximately 40m<sup>3</sup> of insulating oil into the local bund and drainage system. As designed the local fire suppression system quickly extinguished the fire and under direction from the local fire service was kept in service to remove heat from the affected plant items for approximately 1 hour. The combined volume of water from the suppression system and the insulating oil quickly filled the local oil containment facilities. This led to a proportion of oily water reaching the ground and final site oil catchment with a relatively small volume (believed to be approximately 10 litres) of transformer oil mixed with significant water was released to the Severn Estuary. The site utilised emergency arrangements which included getting immediate additional support from Hinkley Point A and C sites along with Environment Agency oversight, and specialist environmental clean-up company, Adler and Allen, was used to help coordinate the recovery. Adler and Allen were mobilised on-site within hours of the event occurring and maintained a 24/7 presence onsite over the following four weeks. Following this, and in order to reduce the ongoing risk to the environment, we have completed a root and branch clean-up of all of the affected drainage and oil catchment facilities. In order to determine the environmental impact of the loss to the Severn Estuary, we contracted marine specialists ABP:MER to assess the impact. This work identified that due to the physical properties of the oil, the relatively low volume, and the high tidal range of the Severn Estuary, the oil would have quickly evaporated and the impact to the environment was determined to be negligible.

This loss of oil to the Severn Estuary, and to ground, is a non-compliance of our trade water effluent discharge consent and as a result we have initiated a Significant Adverse Condition Investigation so that the root, direct and contributing causes can be identified and the lessons learnt from this event.

On more routine matters our liquid and gaseous discharge and environmental monitoring programme has continued throughout this period.

We continue to monitor low levels of CO<sub>2</sub> escaping from a boiler reheater pinhole leak into boiler water that was identified earlier this year, and we are confident that the leak remains stable and will not challenge the limits in our discharge permit. We provide an update on these discharges to the Environment Agency on a monthly basis.

Despite the continuing pandemic, all compliance monitoring and reporting has been maintained as required.

## 3. Emergency arrangements

Despite the challenges presented by the pandemic, the station has completed the full programme of emergency exercises for 2021 with a full team complement from all areas. Gratifyingly, there has been no evidence of any spread of infection from any of these events showing that the controls identified worked and protected all of those involved. The station successfully demonstrated a security response on Wednesday 21 July to ONR (Civil Nuclear Security & Safeguards) and a Level 1 demonstration to ONR on 16 September, again with full team engagement. Through September and October the station also participated in a major ONR overseen multi-agency test of emergency arrangements. These exercises

tested the collaboration required to mount a response to a major offsite incident and then examined the work required to map out a recovery strategy. It involved dozens of players from many of the Government level, South West level and local agencies that would be involved in responding to a major incident at Hinkley Point B.

Since the February meeting, there have been three ambulances called to the site for contract partners who have been taken ill at work. I am pleased to report all three have made full recoveries and have since returned to work.

## 4. Production statistics

For the period 14 June 2021 to 16 October 2021: TWh (terawatt-hour) Production:

- > Reactor 3 0.715
- > Reactor 4 1.346

Unit Capability Factor (percentage load factor) is based on a rated unit power (RUP) of 485 GNN (Gross Net Net) for reactor 3 and 480 GNN for reactor 4.

- > Reactor 3 96.32% excluding losses from planned shutdowns and refuelling
- > Reactor 3 49.15% no allowance for planned events, including refuelling
- > Reactor 4 98.78% excluding losses from planned shutdowns and refuelling
- > Reactor 4 93.47% no allowance for planned events, including refuelling

Number of channels re-fuelled on both units: 25 plus 10 shuffled channels.

Number of flasks despatched: 14

*(Source: station records.)*

## 5. Staff

- > 485 full-time EDF employees
- > 10 EDF apprentices plus 11 ex-Horizon apprentices
- > 18 agency staff
- > 200 full-time contract staff

## 6. Community relations

### Site visits and Visitor Centre

Due to the Pandemic and COVID-19 restrictions, site tours were suspended in March 2020. This position is regularly reviewed, and we will continue to monitor and comply with Government guidance to keep our people and the local community safe.

Recently the new Hinkley Point Visitor Centre was officially opened at Cannington Court. The new centre encourages visitors to explore how electricity is created in a fun and interactive way, and people of all ages can learn why we need to produce low carbon energy and how EDF is helping Britain achieve net zero emissions. As well as school parties, the centre will cater for community organisations, trade groups, holidaymakers, students and the general public. The Visitor Centre is free to access and open between 09:30 hours and 17:00 hours Monday to Thursday and from 09:30 hours to 16:00 hours on Fridays. For more information, call 07813 232358.

### **Sponsorship and Donations**

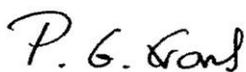
EDF continues to support local charities and organisations. Since the last meeting, local beneficiaries have included:

- > Bridgwater Half Marathon (£400 sponsorship to cover costs for First Aid and water stations)
- > Children's Hospice South West (£250 donation following Enmore Golf Club charity event)
- > Motor Neurone Disease Association and related charities (£1,000 donation in aid of tractor parts auction organised by former employee, James Bacon)

### **Charity fundraising**

Staff and contract partners at Hinkley Point B are continuing to raise money for EDF's charity partner, Prostate Cancer UK. Currently the power station lies in second place in the fundraising league of all EDF locations after raising and banking £26,920 for the popular charity. Since EDF launched its four year partnership with Prostate Cancer UK back in January 2020, the company has raised over £316,000.

And finally, as I sign this report, I am finishing of the preparations for one final sponsorship endurance challenge to raise money for charity. Together with five mixed veteran members of Combwich Boat Club, I will be part of a team attempting to row over 33 kilometres to raise much needed funds for Prostate Cancer UK. The sponsored challenge will take place on Saturday 23 October (weather permitting), and the 21 mile route will see us row from Burnham-on-Sea to Bridgwater Town Centre, and then onto Combwich where we will finish at the boat club. Even though I am well versed in using a static rowing machine, before starting the intensive training for this final challenge a couple of months ago, I had never rowed on the open water before and it is completely different. At the time of writing this report, we have raised over £9,000 for the challenge, and we are hoping to top the £10,000 mark before we complete it. I would like to personally thank Trevor Reason and everybody at Combwich Boat Club for making this sponsorship event possible.

A handwritten signature in black ink that reads 'P. G. Evans'.

**Peter Evans**