

**EDF Energy
Torness Power Station**

Minutes of the forty third meeting of the Torness local liaison committee held at Torness power station on Thursday, 19 March 2015.

Present

City of Edinburgh Council

Mr Chas Booth
Mr Nick Gardner
Mr Russell McLauchlan

Civil Nuclear Constabulary

Mr John Hannah

Cockburnspath and Cove Community Council

Mr Kevin Craig

Dunbar Community Council

Mr Kilvert Croft

East Lammermuir Community Council

Mr Chris Bruce

East Lothian Council

Mr Norman Hampshire
Mr Scott Kennedy

East Lothian Fire and Rescue

Mr Tony Collins

Lothian and Borders Police

Mr Jim McKenna
Mr Stuart Reid

National Farmer's Union for Scotland

James Wylie

NIO

Mr Douglas Burt

Office for Nuclear Regulation

Mr Steve Frost

Scottish Environment Protection Agency

Ms Isabelle Watson

Scottish Government

Mr Ewan Young

EDF Energy

Mr Robert Gunn (chairman), plant manager *
Mr Michael McHugh, technical and safety manager *
Mr Andrew Moodie, environmental safety group head*
Ms Lindsey Ingram, media officer *
Ms Linda Smith, public affairs *
Mr Peter Ralphs, project manager *
Mr Billy Hutchison, security*
Mr Peter Wilkinson, emergency planning engineer *
Mrs Margaret Wenham, communications and community liaison

*(denotes EDF Energy staff)

561. Welcome

Mr Gunn welcomed everyone present to the forty third meeting of the Torness local liaison committee and went round the table and asked everyone to introduce themselves to the meeting. He also issued some safety and administration arrangements.

562. Apologies for absence

Apologies were received from: Councillor Simon Mountford, Scottish Borders Council; Councillor Michael Veitch, East Lothian Council; Councillor Denis Dixon, Keith Alison, SEPA; Chris Gall, SEPA; Niall Duncan, SEPA; Karen Minto, Scottish Government; Ross Baird, Scottish Government; Jane Young, Midlothian Council; Councillor Sandy Baptie, East Lothian Council; Paul Young, City of Edinburgh Council; Andy Lanigan, Civil Nuclear Constabulary

563. Minutes of previous meeting of 20 March 2014

The minutes of the forty second meeting of the committee were approved and accepted as an accurate record.

564. Matters arising

Councillor Chas Booth: Can we have a Fukushima update and discuss any other issues from previous Station Director's report?

Robert Gunn – EDF Energy: All of this should be covered in today's meeting.

565. Plant manager's overview

Mr Gunn spoke to the reports in the packs under the headings of plant status, safety, people, outage, and local community.

a. Current plant status

Both reactors are currently operational with no losses across December 2014 and January and February 2015. In the 2014 EDF world-wide reliability league table, Torness Unit 1 was in first place at around 94% (over a three year period).

Unit 1 is currently operating at 100% and Unit 2 is operating at 93% power due to an issue with our HP turbine which we will repair at the summer outage. An outage at a power station is similar to a car having an MOT and service but on a much bigger scale. Each of the two generating units at Torness is taken safely offline every three years for routine inspection and maintenance work where our engineers will take the opportunity to carry out a number of improvement projects on the site at the same time.

A lot of the work being carried out can only be done whilst the reactor is shut down.

The station has been generating enough safe, low carbon energy for more than 2 million homes since it started operating in 1988 and we continue to focus on being the on being the top performing station in the fleet, targeting continuous improvements in our safety, equipment reliability, refuelling and outage performance. This is being achieved through staff engagement and our nuclear professionalism / human performance programmes.

Our new three year vision for 2017 is Torness Target Zero (zero harm, zero losses, zero repeat events and lifetime extension beyond 2030).

Investment is also key; every year we spend almost £50 million on staff costs, over £20 million on core spend, £11 million on rates and over £50 million on outage and capital investment. Much of this goes back into the local community and we will continue to engage with local suppliers.

b. Safety

Nuclear safety:

As at 31 December 2014

1276 days since our last nuclear reportable event

Environmental safety:

1419 days since our last environmental event

Industrial safety:

2176 days since our last staff lost time incident

Industrial safety:

175 days since our last contractor TRIR (total recordable injury rate)

The last time incident in July involved a contract partner suffering a hairline fracture to his fibula. This happened when he was undertaking a simple activity of sweeping up his work area. This was our first lost time incident since January 2009.

Medical Treatment and Restricted Work Incidents:

21 February 2014: Contractor - stitches to finger

4 March 2014: Contractor - damage to thumb

24 March 2014: EDF Energy staff - aggravated a back injury whilst clearance monitoring

This safety record has been achieved thanks to the commitment of our people and the open reporting culture, combined with the culture of challenge at all levels. Our task now is to avoid complacency and maintain this record on our journey to Zero Harm.

Q. Councillor Norman Hampshire: Can you tell us more about the fuel rod issue on Unit 2 in March?

A. Robert Gunn – EDF Energy: We successfully removed the fuel assembly and the system went back to normal; we will study the fuel in post irradiation.

Q. Councillor Norman Hampshire: Can you confirm that there have been no other similar faults?

A. Robert Gunn: Yes

Q. Councillor Norman Hampshire: What is the oldest plant in the UK?

A. Robert Gunn: Hinkley and Hunterston are the oldest EDF Energy plants.

Q. Councillor Nick Gardner: Can you tell us a little about graphite bricks? What are the current weight limits and are there any issues?

A. Steve Frost – Office for Nuclear Regulation: During the 2014 outage a large number of bricks were tested and no issues were found. The company has invested a lot and Torness is in a good place with respect to its safety case.

A. Graphite weight loss information was sent to all members following this meeting.

c. Security

Four routine Regulatory Inspections were carried out during 2014 which resulted in a small number of reviews and minor procedural changes.

A Security Transport Inspection was carried out in **February 2014** following which some minor changes were made to recording and training. A number of Security projects continued involving physical changes to Security, procedures, and accommodation.

A small number of Security Events were reported to the Regulator which were all minor in nature.

A Security Exercise was carried out in **November** attended by the Regulator which was deemed satisfactory following which some procedural changes and training improvements were made.

A project to ensure that all resident EDF Energy and contract staff were vetted to a National Level was completed in 2014.

d. People

People management has contributed to the success of the station as we carefully manage role succession and ensure personnel are available to fill all vacancies. This included bringing new staff in up to two years early for key roles to allow an extended handover.

We've around 530 permanent staff and 200 contract partner employees with well over 1,000 people on site during outages.

We have a strong local recruitment record with most our workforce living in the area as well as drawing most of our new apprentices from local schools. The apprentices are based down south at HMS Sultan for the first two years of the programme; they return to the Station for the final two years of the apprenticeship. We have 32 people in our Apprentice Scheme and have recently made offers to six new apprentices.

We are also working hard on improving diversity and we were delighted to win Apprentice of the Year 2014; repeating our success from 2013.

We continue to make good progress with our independently accredited training programmes, including our leadership academy.

e. Outage

Unit 1 was shut down in February 2014 as planned for its tenth and biggest outage yet.

Each of our two generating units is taken offline every three years for routine inspection and maintenance work, where our engineers will take the opportunity to carry out a number of improvement projects on the site at the same time. A lot of the work can only be done whilst the reactor is shut down (e.g. we put cameras into the reactor for inspections as part of our safety case to operate). An outage at a power station is similar to a car having an MOT and major service but on a much bigger scale.

We have replaced all three generator transformer phases on both units. Torness was the first station in the fleet to do this. Each transformer weighs over 250 tonnes.

Office for Nuclear Regulation (ONR) approval was required as normal to start the reactor back up.

Our next statutory outage is Unit 2 in the summer - starting 11 July; we will complete around 18,000 tasks.

f. Emergency services call out

We had to call the emergency services out on two occasions this year; both were in August and were the result of non work related medical issues.

g. Community and Visitor Centre

Last May our visitor centre celebrated its first birthday with more than 3,700 visitors in the period and its five star award was renewed by Visit Scotland. In November we reached 5,000. To celebrate this birthday, our Chief Executive, Vincent de Rivaz, visited along with pupils from East Linton Primary.

More than £400,000 was raised for Marie Curie Cancer Care through various events across the company. The charity has been EDF Energy's partner since 2013 and this will continue until 2016. The station has held a lot of fundraising events and many employees have completed their own challenges to raise cash. There have been tea parties, dress down days, sponsored walks / runs, cake sales etc.

We continue to partner up with Dunbar Science festival to deliver an award winning community science festival event. We have also supported Edinburgh Science festival and, through Generation Science and our Ambassadors, provided educational workshops to all local schools.

EDF Energy has a scheme called 'Helping Hands' where we offer all employees at least two days paid work time per year to take part. Employees are encouraged to use the programme to engage with the communities it serves, through volunteering.

A good relationship has been recently developed with Dunbar Basics Bank with three full donation drums donated and £500 raised through a sponsored run.

The Wildlife Trust's Biodiversity Benchmark was attained in December; the first business in EH postcode to achieve this.

An Open Learning week was held in December attended by over 350 local school and university students and we will repeat next week as so popular.

The MailOnline recently spent some time at Torness to find out more about how a nuclear power station works. The visit was hosted by our Special Projects Manager and Lindsey Ingram, Media Officer – Scotland. Prior to this visit, we hosted an 'access all areas' all day visit from their photographer to enable them to take a series of photographs which clearly demonstrated our commitment to openness and transparency.

The story praised our attitude to health and safety, the sheer technological prowess of the plant and our highly skilled workers. It was an honest representation of what we do and how safety is at the heart of everything. It also explained in plain English how electricity is produced by a nuclear plant.

The MailOnline is read by close to 100 million users every month. This piece helped us reach a wide audience and showed the importance of what we do.

566. Operational overview

Mr Gunn spoke to the reports in the packs under the headings of operational performance, significant events and unplanned losses.

a. Operational performance

In 2014 Torness produced 8.5 TWh (million, million Wh), against our plan of 8.6.

Unit 1 was brought back on line on 19 April 2014 after its tenth and largest outage which went very well, resulting in us winning the fleet 2014 Outage award.

Unit 2 had a planned maintenance period in July to repair a turbine governor valve. This valve controls the flow of steam into the turbine and is part of the conventional, non-nuclear, side of the power station. Unit 2 was returned to power on 15 July 2014. We completed the outage five days ahead of plan. Further work on these valves and the HP turbine will be completed at this year's outage (this issue is causing the current Unit 2 load reduction to 93%).

Other main shutdowns during the year (all of these have had Root Cause Analysis completed to prevent a recurrence):

- **18 March 2014:** Reactor two automatically shut down safely, as per design, after loss of clutch power supplies to one of its eighty-nine control rods. The reactor was re-synchronised to the grid on **22 March**
- **01 July 2014:** Reactor one automatically shut down safely, due to a fault with a turbine generator control system component. The reactor was re-synchronised to the grid on **08 July**
- **14 July 2014:** Reactor one automatically shut down safely during routine testing of the reactor protection system. We test this sensitive system on a regular basis to prove the reactor will always shut down when it needs to. The reactor was re-synchronised to the grid on **17 July**
- **21 November 2014** On 21 November reactor two automatically shut down safely due to a relay fault within one of its electrical protection systems. This equipment is designed to 'fail safe', in other words a protection fault will result in safe, automatic reactor shut down. The reactor was re-synchronised to the grid on **24 November**

We continue to work on our marine ingress project.

Torness will currently operate until 2023 and a lot of work is in progress this year on possible life extension towards 2030 and potentially beyond. This will require a separate capital investment project which I expect to be around £80M over the next few years. Our regulator, ONR, will be kept fully involved.

b. Significant events

Torness has worked 2176 days without an EDF Energy Lost Time Incident (LTI) (up to end December) and 175 days since the last contractor LTI.

Torness continues to focus on a zero harm culture, improve task risk assessment and safety rule compliance and encourage a high standard of safety awareness whilst avoiding complacency.

The Station Nuclear Professionalism Clock was reset on 10 December 2014. This event was linked to a Nuclear Safety Boundary Door found briefly unlatched and unattended; this was the first event in 305 days.

Q. Councillor Chas Booth: How many unplanned outages were there last year?

A. Robert Gunn – EDF Energy: Four

Q. Councillor Chas Booth: How many days were lost?

A. Robert Gunn – 17 days in total

Q. Councillor Chas Booth: Can you provide exact dates and reasons for each event?

A. Robert Gunn – Information provided above and was also provided to LLC members at the time of each event.

Q. Councillor Chas Booth: Historically jellyfish and seaweed have been the principal reason for unplanned shutdowns

A. Robert Gunn: None of the 2014 issues were caused by marine ingress

Q. Councillor Chas Booth: Are you any closer to resolving the marine ingress issue?

A. Robert Gunn: We have spent £2.5 million on replacing drum screens and have installed a local wave recording buoy which provides us with information on wave height, direction, period, spread and sea temperature which helps identify the risk of marine ingress. As part of an ongoing five year project we are continuing to look into

developing other physical measures. The EDF Energy Research and Development team is a key partner in government work in this area.

567. Emergency planning

Mr Peter Wilkinson spoke to the reports in the packs under the headings of emergency planning and emergency exercises programmes and progress.

Over the year there were no events whereby the emergency arrangements were invoked. The ambulance service had been called to site on two occasions since the last meeting – all associated with medical conditions with individuals.

Our level two exercise took place on **1 October** and our counter terrorism exercise took place on **26 November**. Our level one exercise, whereby we demonstrate our emergency arrangements to our regulator will take place on **3 June**.

Mr Gunn added that the station would not be able to carry out exercises without the support of all of the emergency services. Torness gets outstanding support from all the emergency services.

Police and Fire Service re-organisation is ongoing; this may affect participation in shift exercises during this season and is being monitored through emergency services liaison group.

Hazard Identification and Risk Evaluation Report (HIRE) reviewed, updated and reissued April 2014; next review **April 2017**.

The next **Emergency Plan Consultative Committee (EPCC)** meeting is scheduled for 25 March at John Muir House, Haddington; there are no outstanding actions for Torness.

Two emergency services liaison group (ESLG) meetings have been held since the last LLC meeting, there has been good involvement from police, fire service and ambulance emergency planning officers, CNC, head of site security, fire safety co-ordinator and occupational health adviser.

We are progressing issues from exercises and enhancing and improving arrangements between Torness and emergency services personnel.

Japanese Earthquake Response Programme (JERP): New emergency back-up equipment located at Bellshill, Glasgow.

- All emergency scheme role holders received initial training, involved practical hands-on training for Standby Emergency Response Team (SERT) with equipment
- Continuing training will commence in 2015/16
- The majority of back-up equipment is located off-site and would be deployed to Torness in the event of a beyond design basis accident (BDBA) or if there is a business need to use the equipment, e.g. major flooding, etc
- Station exercise scenario involving simulated event associated with BDBA will be planned for 2017
- Flood protection barriers located next to key doors at ground level.
- Two mobile generators located on site as back-up electrical systems.

Q. Councillor Chris Bruce: Are there any implications for the local community?

A. Michael McHugh: We attend the Emergency Planning Consultative Group where we give a more detailed report

Q. Councillor Chris Bruce: Is the local community represented at the EPCG or advised of the outcomes? I raised this at the LLC meeting two years ago and believe it is a missed opportunity

A. Robert Gunn: We will take this suggestion away

Q. Mr James Wylie: Post Fukushima, how confident are you that flood defences are adequate?

A. Mr Ian Cathro: Based on all the evidence, Torness is the UK's safest site in the event of a tsunami; independent projections indicate we are safe from the highest foreseeable wave. At our zero metre level, we are 11.5 metres above sea level and the worst case scenario assessment indicates that we might get some minor overlapping which would then drain back.

Business Continuity

- All departments (15) have a nominated Business Continuity Co-ordinator
- 2014 Department Business Impact Analysis complete – no significant risks identified
- Station Business Continuity Plan – includes guidance covering emergency catering

- Business Continuity Plan prepared to mitigate effects of potential Fire Service industrial action
- Cross functional team set-up to review potential impact of Iceland Volcano Bardarbunga.

Conclusion

Continual improvement of emergency arrangements along with comprehensive emergency plan training and exercises will ensure the ability of Torness staff and facilities to be able to respond to and deal with emergency situations in conjunction with assistance from the emergency services.

Q. Councillor Norman Hampshire: Can you tell me about the offsite emergency response centre at Cockenzie; what are you planning on doing now that it has closed?

A. Robert Gunn: Although Cockenzie is being decommissioned, we still have full access.

A. Mr Scott Kennedy – Emergency Planning at East Lothian Council: We are expecting the new premises to be in place by the end of this calendar year.

A. Mr Robert Gunn: Cockenzie will remain active till Penston House in Macmerry is fit for purpose.

Q. Will you be able to remain at Cockenzie if Penston House falls through?

A. Mr Robert Gunn: We will continue at Cockenzie until an alternative location is in service.

Q. Is there an option to extend the lease at Cockenzie?

A. Mr Robert Gunn: This would require discussion with Scottish Power in the unlikely event of a problem.

Q. Councillor Norman Hampshire: What impact will the recent emergency services amalgamation have on emergency exercises?

A. Robert Gunn: While there has been some impact, we are still getting very good support

A. Mr Tony Collins – East Lothian Fire & Rescue: There has been considerable flux but we've arranged for our officers to tour the site and the facilities at Bellshill are very reassuring

A. Mr Scott Kennedy – Emergency Planning at East Lothian Council: The recent level 2 exercise was successful.

A. Mr Stuart Reid – Lothian and Borders Police: Where there is an area of risk, we work hand in hand with people on site. We are broadening the skill set of less experienced officers

Q. Councillor Chas Booth: Is there a time scale for a post Fukushima exercise?

A. Michael McHugh: Torness will demonstrate part of the relevant equipment in 2017 as part of our fleet exercise plan.

Q. Councillor Chas Booth: Will the exercise mirror Fukushima?

A. Michael McHugh: It will be a full scale exercise also deploying all major services and we will simulate issues, e.g. by putting delays in place or holding back people involved and our back up equipment.

Q. Councillor Chas Booth: There were human issues at Fukushima with people not remaining at their posts. How can you be confident you can handle every eventuality; you need to know the minimum number of people you need to operate?

A. Robert Gunn: You are right we do need to know minimum numbers but all of our people are committed to protecting the public

Q. Councillor Chas Booth: If you are operating with minimum numbers, do you have enough trained people?

A. Robert Gunn: Yes, we avoid single point experts

568. Health Physics presented by Andrew Moodie

Reports from the LLC Technical Subgroup Meetings

The radioactive waste management reports and operational district survey reports that are presented at this meeting were presented to and discussed at the LLC Technical subgroup. Meetings were held on 9 October 2014 and the most recent was held on 12 March 2015.

The district survey report for the fourth quarter 2014 has been completed but not in time for the pack; it will be circulated in due course. Thanks are due to the members of that committee who provide scrutiny of the data on your behalf.

a. Radioactive Waste Management

It was reported that in general the levels of gaseous and liquid discharges were consistent to those recorded in previous years and all within approved discharge limits. An explanation was given of increases in Sulphur-35 discharges caused by the injection of carbonyl sulphide (COS). The circumstances around a possible future need to apply for an increase in the discharge limit for Sulphur-35 was discussed. A report was made on the small leak of tritium from one of the tritium effluent discharge lines. It was noted that this was discovered quickly and was retained within the secondary containment. The line has been withdrawn from service and both the Office for Nuclear Regulation (ONR) and the Scottish Environment Protection Agency (SEPA) have been kept fully up to date.

2014 was a very successful year for dealing with low level waste and good use has been made of new disposal routes to comply with the hierarchy of waste. A report was made on the application to vary the station's discharge authorisation in the area of transfer of wastes to third parties for treatment and disposal. The consultation is closed and SEPA are currently making their decision.

b. Operational District Survey Results

Operation district survey results show that levels of radioactivity in the local environment have not changed significantly and remain very low. East Lothian Council has arranged for independent environmental sampling to be carried out on seaweed and soil.

There is good agreement between their results and ours and it is sufficiently sensitive to be able to track small changes in the levels of discharges. Overall the radiological impact of Torness to the local environment remains very small with no significant risk to members of the public.

c. On Site Radiological Conditions

Doses to workers at the plant were low and well within regulatory limits. Information on contamination control measures was presented

Q. Councillor Chris Bruce: Thinking about the sulphur emissions from Lafarge, is there a cumulative issue on sulphur emissions in this part of the country?

A. Mr James Wylie: much of the soil in this area is sulphur deficient

Q. Councillor Nick Gardner: Are you proposing to transport waste to Hunterston?

A. Andrew Moodie: We are. **SEPA** carries out independent monitoring on this which is published.

Q. Mr Ewan Young – Scottish Government: Referring back to LLC/P (14)710, is the vehicle monitor at the exit gate working?

A. Andrew Moodie: It is in place and being commissioned but is not yet fully operational

Q. Councillor Chas Booth: You mention ongoing work on life extension beyond 2023, this will be very complicated. Where in the process are you?

A. Work is ongoing, it requires plant analysis, both safety and commercial cases along with consultation with the ONR. We are not in the position to make an announcement soon.

Q. Councillor Chas Booth: When did you identify the tritium leak?

A. Andrew Moodie: It was first identified in February, it is important to note that this was not a significant leak.

Q. Councillor Chas Booth: How was it identified?

A. It was identified during standard checks; there was no impact on soil – the leak was only a few millilitres.

Q. Councillor Nick Gardner: What storage capacity do you have for intermediate waste?

A. Andrew Moodie: We have sufficient capacity for station life.

Q. Councillor Norman Hampshire: Is low level waste incinerated?

A. Andrew Moodie: Yes, some is incinerated at the High Temperature Incinerator in Hythe along with waste from hospitals and redundant chemicals from use in schools, universities and research and development establishments.

Q. Councillor Chris Bruce: Did any local councils comment on the variation application? Did people know?

A. Andrew Moodie and Robert Gunn: It was discussed at many forums and at last year's meeting. Environmental Health Officers receive the papers. There is a three stage consultation process.

A. Lindsay Ingram: It has been covered in the local press.

Q. Councillor Chas Booth: Do you know if there will be an environmental impact analysis [EIA]?

A. Robert Gunn: This will be done.

A. Steve Frost – Office for Nuclear Regulation: We review all plant life extension submissions, looking at all documents; Convention rules that EIA should be included in any extension consideration. Key for us is the periodic safety review – the next one is due in 2019.

Q. Councillor Norman Hampshire: With Cockenzie not generating and Longannet closing, does it put additional pressure on Torness to keep the lights on?

A. Robert Gunn: We don't tolerate commercial pressure impacting our operations and will shutdown reactors without hesitation when that's required.

Q. Councillor Chris Bruce: What would the sea defences be made of?

A. Peter Ralphs: Three layers of rock piled on the sea bed in the location outlined in the appendix document

Q. Councillor Chris Bruce: Is there any progress on getting a better surface on the road between here and Lafarge for cyclists?

A. Robert Gunn: There may be something we can progress as a group though it's not our land.

Q. Councillor Chas Booth: Can we receive the report electronically in future?

A. Robert Gunn: We will look into doing this, subject to file size constraints. It appears some people would prefer to continue receiving a hard copy and some would prefer electronically.

Q. Councillor Chas Booth: Can we also circulate a contact list for all attendees?

A. Robert Gunn: This will be done.

569. Review of visits

In 2014 there were 3,220 visits to the power station from a wide variety of people including school and university tours, rotary clubs and local people who haven't been before; this is an increase of 32% on 2013 numbers.

This increase was partially as a result of an Open Learning Week in December 2014; this event was so successful that it is being repeated in week commencing 23 March 2015.

We took our mobile visitor centre, a fire fighting simulator and a 3D printing presentation to the Dunbar Sci-Fest at the beginning of March. The event was attended by almost 6,000 visitors with some parents saying they were unaware that our site tours are free of charge and committing to visit over the school holidays.

So far this year, we have already had 609 visits and have just over 550 pre-booked site tours.

570. Review of newsletters and press releases

We send a monthly report to LLC and to the local community.

Ms Lindsey Ingram spoke to the media coverage report included in the papers.

571. Any other business

There were no other matters raised.

572. Date of next meeting

Thursday 7 April 2016.

Robert Gunn thanked all attendees for coming and closed the meeting.