EDF ENERGY
Torness Power Station

Local Liaison Committee – Technical sub-group

Minutes for the 65th Meeting of the Technical sub-group, held via Zoom on Thursday 24th February 2022.

1. Welcome and Apologies

Attendees

Andrew Moodie (AM)	Environmental Safety Group, EDF Energy (Chair)
Kate Goan (KG)	Environmental Safety Group, EDF Energy
Euan Burt (EB)	Environmental Safety Group, EDF Energy
Isabelle Watson (IW)	SEPA
James Wylie (JW)	Scottish National Farmers Union
Shaun McKenna (SMcK)	Office for Nuclear Regulation (ONR)
Simon Wood (SW)	Edinburgh City Council

Apologies

Scott Callow (SC)	East Lothian Council

2. Minutes of the 64th meeting

Minutes of the 64th meeting were accepted.

3. Actions arising from the previous meeting

Action number	Description	Due
N/A	N/A	N/A

No actions from the 64th meeting.

4. Radioactive Waste Management (July – December 2021) – LLC/P(21)856

4.1 KG presented the waste management report.

4.2 AM updated the technical sub group that Torness now has a new station director Paul Forrest who was previously Station Director of Hunterston B. Prior to working at Hunterston B, Paul worked as a Plant Manager at Torness so he is familiar with the site.

4.3 From the record of monthly discharges, KG was able to show the meeting that there are no months where the limits on gaseous or aqueous discharges have been challenged.

4.4 KG presented the gaseous discharges and did mention that there have been elevated levels of Ar41 in the gaseous discharges for the months of October and August (well within discharge limits). This comes as a result of air ingress into the reactor during Offload De-pressurised Refuelling (ODR) where stable isotope Ar^{40} in the air becomes Ar^{41} in the reactor core.

4.5 KG presented the solid waste disposals from Torness for the reporting period showing that there were disposals to 2 facilities.

1. 10.3m^3 of metallic waste for recycling to Cyclife in Workington
2. 12.24m^3 of incinerable waste to Tradebe in Fawley.

KG went on to discuss waste storage starting with the sand and sludge tanks, which has a storage limit of 10m^3 however an operational limit of 4m^3 is put on the tanks by the station. The tanks are currently sitting at 3.4m^3 full with an annual accumulation rate of 0.3m^3. The station aims to empty the sludge from the tank before it reaches 4m^3.

4.6 KG went on to present the aqueous discharges from Torness within the reporting period. All results from H3 and S35 fell within the regulatory limits and reflected the tank discharges from site.

Elevated results of Co^{60} and Cs^{137} could be seen from the report, this follows Pond Water treatment movements (filter media exchanges) with 2 tanks in September and 1 tank in November.

4.7 KG presented the gaseous discharges and noted that the profile of C^{14} discharges had changed due to more frequent reactor blowdowns for ODR. With LPR the C-14 discharges where less frequent but contained more activity, ODR blowdowns are more frequent but the C-14 inventory in each reactor is significantly reduced so less C-14 is being blowdown. C^{14} levels in discharges are still well within permitted limits.

4.8 AM commented that as the rolling 12 monthly discharges have not been increasing, it shows that the ODR method of refuelling is not having a significant impact on the annual discharge limits for Torness.

5. Review of the Operational District Survey Results.

5.1 **Quarter 2 District LLC/P(21)853.**

KG presented the Q2 district survey results. Due to sampling point unavailability, 3 out of 9 grass samples were collected. There was nothing significant to note on the samples that had been collected.

5.2 Similarly, for the dry cloth collections and milk samples, nothing significant was noted.

5.3 Beach sediment samples collected from the cooling water outfall of Torness had detectable Ag^{110} and Mn^{54} however this is expected and is well within the permitted discharge limits.

5.4 **Quarter 3 District LLC/P(21)855**

KG presented the Q3 district survey results. For this quarter, 5 out of 9 grass samples were collected. The remaining sample points were insufficient to yield an adequate sample.

There was detectable Cs^{137} and Co^{60} in the seaweed and winkle samples at the cooling water outfall. This is well within the limits and were found in quantities that are not significant to the surrounding environment. These results have been compared to previous sampling results in reports and have been shown to be not statistically significant.

5.5 The district survey lab is running on reduced staffing as the contractor previously responsible for this is no longer available for this role. As a result, engineers are currently making up for this shortfall. SEPA have been made aware of these arrangements.

6. On site Radiological Conditions (July to December 2021) – LLC/P(21)858

6.1 EB presented the report

6.2 The main work of significance was a Summer fuel route outage that ran for 38 days between August and September. The Collective Radiation Exposure (CRE) for the period July to December 2021 was 13.30 man-mSv against a dose prediction of 15.55 man-mSv (86%).

6.3 The CRE for September was greater than forecasted; this was due to work in the Irradiated Fuel Disposal Cell where seals were replaced on the lower containment tube. This work factored into dose predictions in but the forecast was spread across the full fuel route outage, not contained within the one month.

The collective dose for this task was 0.445 man-mSv which was significantly lower than previous occurrences of this work (1.93 man-mSv in 2017 and 13 man-mSv in 2007). This was due to there being experience in the team from previous tasks of this nature, task simulation and a reduction of dose rate at the point of work.

6.4 The average individual dose to workers was 0.034 mSv and the maximum individual dose was 0.315 mSv. The individual with the most exposure was an Environmental Safety Technician supporting a variety of the fuel route tasks on site. Specifically, Irradiated Fuel Disposal Cell 2 Upper Containment Box and Lower Containment Box, Pond Reception Tube Overhaul and debris disposal.

6.5 The station has seen a reduction in the number of recorded RCA entries. This puts more of a weighting on the statistics of monthly personal contamination events per 10,000 entries.

One reason for this is individuals not returning their EPDs to the communal rack in between visits to the RCA in order to reduce the risk of Covid transmission.

7. East Lothian Sampling Programme

7.1 East Lothian Sampling programme report was presented.

7.2 ACTION (65/01) – KG to ask SC for more clarity on data points associated with Oldhamstocks and Linhead Farm as graph appears to show an upwards trend from November 2021 onwards.

8. EDF Working Party

8.2 KG is no longer Chair of the EDF working party so is in the process of handing over the duties to the next Chair.

9. AOB

9.1 AM stated that EDF has confirmed a change to the expected end of generation dates for Torness. The station is now expected to continue generating until March 2028. Torness now has a revised date for end of generation, as it will now be no later than 2028. This date was previously 2030. The graphite core is the main limiting factor in this case.

In January, we took Reactor 1 offline for a refuelling and graphite inspection outage. Inspections, modelling and operational experience tell us that at this stage of generation we can expect to start seeing some of the changes to the graphite reactor cores.During the inspection, we identified three keyway root cracks (KWRC). This was well within our expectations and we have a safety case, supported by the independent regulator, which allowed the reactor's return to service.

9.2 The next LLC technical sub group meeting will be on Thursday 27th October.

10. Summary of New Actions

Action number	Description	Due
65/01	KG to ask SC for more clarity on data points associated with Oldhamstocks and Linhead Farm as graph appears to show an upwards trend from November 2021 onwards.	Next meeting

ACTION UPDATE

Action 65/01 SC cannot offer any explanation for the upwards trend in the East Lothian Sampling Programme. It is assumed this was due to natural variation within the instrument readings. He has offered to have a look for any changes to the physical environment within the vicinity of the monitors when he is next on-site.