

**MINUTES OF THE MEETING OF THE
SIZEWELL A & B STAKEHOLDER GROUP (SSG)
HELD AT SIZEWELL SPORTS & SOCIAL CLUB,
KING GEORGE'S AVENUE, LEISTON IP16 4JX
ON THURSDAY 8TH SEPTEMBER 2016 AT 10:00**

PRESENT

Cllr M Fellowes	- Aldeburgh Town Council	<i>SSG Chairman</i>
Mr P Wilkinson	- Co-opted Member	<i>SSG Vice Chairman</i>
Cllr D Bailey	- Leiston-cum-Sizewell Town Council	
Mr T Branton	- Co-opted Member	
Mr T Griffith-Jones	- Co-opted Member	
Cllr T Hodgson	- Suffolk Association of Local Councils	
Ms P Hogan	- Sizewell Residents Association	
Cllr G Holdcroft	- Suffolk Coastal District Council	
Cllr M Jones	- Aldringham-cum-Thorpe & Knodishall Parish Councils	
Cllr R Rainger	- Snape Parish Council	
Mr M Taylor	- Friends of the Earth Representative	
Mr C Tucker	- Sizewell B Staff Representative	
Cllr H Williams	- Westleton Parish Council	

IN ATTENDANCE

Dr C Barnes	- Suffolk Coastal District Council
Mr M Cubitt	- Sizewell B Plant Manager
Ms M Barnes	- Public Relations Officer Sizewell B
Mr P Fahey	- Environment Agency Sizewell A Inspector
Mr S Fox	- SSG Secretariat
Mr A Jakeways	- Office for Nuclear Regulation Sizewell A Inspector
Mr P Montague	- Sizewell A Closure Director
Mr G Moorcroft	- Office for Nuclear Regulation Sizewell B Inspector
Mr S Parr	- Environment Agency Sizewell B Inspector
Mr B Hamilton	- NDA
Dr S Runacres	- Food Standards Agency
Mrs J Sparkhall	- SSG Clerk
Ms V Thomas	- Environment Agency
Ms G Cooper	- Environment Agency

MEMBERS OF THE PUBLIC

Ms J Girling
Mr R M^{ac}Gibbon

CHAIR'S OPENING COMMENTS

3191 Chair welcomed all attendees, provided domestic arrangements and asked all speakers to use the microphones and to introduce themselves. Chair thanked the Sizewell Sports & Social Club staff and also S Fox and J Sparkhall for facilitating the meeting today. Chair then drew new members' attention to the courtesy slide displaying the SSG principles.

I PUBLIC FORUM

3192 Ms Girling raised the following four local issues: what is going to happen to the District Survey Lab (DSL) building which was owned by Magnox and now belongs to EdF? How are EdF going to link the Aldhurst Farm Habitat Creation Scheme to the bridle ways and footpaths? The degradation of the Sizewell intake and outfall rigs and finally Ms Girling wanted to know who has ownership of the Sizewell Sports and Social Club? It had been noted that some of the facilities, like the tennis courts were in a bad state.

3193 Chair asked that EdF update the group on DSL and Aldhurst Farm in their report and the rigs and Social Club can be addressed in the Sizewell A report. Chair advised members of the public and other invited guests that they are able to ask questions after each report and are not limited to the beginning of the meeting. Chair confirmed that answers will be sought should any questions remain outstanding.

2 APOLOGIES FOR ABSENCE & DECLARATIONS OF INTEREST

3194 Apologies for absence were received from Ms R Carrington; Cllr Guy McGregor; Mr T Woodward; Mr P Morton; Mr A Osman; Ms N Rousseau; Mr D Foy; Mr M Whitby and Cllr J Fisher.

3195 Additional declarations of interest were sought but none were forthcoming.

3 SIZEWELL A REPORTS

3a. Mr Peter Montague, Closure Director, Magnox

3196 Mr Peter Montague, Closure Director at Sizewell A, advised that there was not a great deal to report in the last quarter and as such had not put together a written report. Mr Montague assured the group that he will send in a statement for the minutes to enable councillors to report back to their councils. Mr Montague continued his presentation that covered the following points:

- Safety and compliance: safety and compliance has continued to be good. No injuries on Site for 15 months and no environmental events reported.
- Sizewell Radioactive discharges summary: both aqueous and gaseous discharges from Sizewell A represent a small percentage of the weekly, quarterly and annual limits set within the Site's Permit as detailed in the slide. It was noted that gaseous discharge totals were all less than 1% of the permitted limits for both Tritium (0.41%) and Carbon-14 (0.90%). Only two aqueous discharges have been completed over the past quarter with a total volume of 296.1m³ discharged. The activity of these discharges was extremely low compared with the quarterly notification level and annual limit of Tritium (0.27%), Caesium-137 (3.44%) and other radionuclides (5.98%). Mr Montague advised that these levels will go up when the ponds are drained over an eighteen month period starting towards the end of next year going on to April 2019 at which point the discharge will drop again.
- Lifetime Plan: Magnox has completed its review of the Lifetime Plans (LTP) for all 12 Magnox sites. NDA is now reviewing and verifying the information. The care and maintenance (C&M) closure date for Sizewell A remains April 2027. Magnox are currently reviewing the NDA funding profile against the LTP. The Sizewell A Magnox workforce is now 184, there will be continual reduction in numbers as we progress our C&M preparations.
- Projects update: the Ponds Programme continues to prepare for physical decommissioning activity to begin later in the year. Divers will be used at Dungeness

first and then arrive at Sizewell A in May 2018. The Waste Programme is now established and is preparing for waste retrieval. A design and build for a containment is required to safely access the FED vaults.

- Asset Care Projects: currently have abseiling teams on the reactor building checking and repairing cladding. A new access point has been prepared for the reactor building with state of the art personal contamination monitors. Several roofs have been repaired to prevent water ingress and protect internal equipment and structures. Pedestrian bridge has been reinforced following severe corrosion being identified. A deterrent system for gulls has been installed to reduce the problem on site during the nesting season.
- Socio-economics: Sizewell A have approved over £1750 of funding for three projects through our Good Neighbour Scheme this Financial Year. Sizewell A are keen to receive more applications. More details are available at www.magnoxsocioeconomic.com. Recently donated a painting of Sizewell A under construction to the Long Shop Museum in Leiston as part of the PhotoEast exhibition, which was also funded through the Good Neighbour Scheme.

- 3197 Mr Montague went on to address Ms Girling's concern about the state of offshore structures and the Kittiwake colony. He advised that the plan is to remove the structures in 2023 but in the immediate time they will be tidied up and ladders will be removed to make them safer. There is still a responsibility to maintain the navigation lights on the rigs and current thinking is to replace them with floating buoys.
- 3198 Chair confirmed there was a safety issue, but before the structures are removed, Sizewell A must make sure they are in dialogue with all the local organisations such as the local fisherman and marine agencies and ensure they are not used by the wider community. Chair was concerned that 2023 was a long way off to maintain the structures and if they are redundant, and there is an issue with safety, then perhaps there should be some additional funding in order to bring that work forward.
- 3199 Mr Montague advised that the funding was there in the future, but to bring that funding forward, other essential work may be compromised and the site's focus and priority is on the mobile radioactive hazard. Mr Montague went on to say that his immediate concern is making sure that the public do not put themselves in danger by clambering up on the structures and making sure that his staff do not put themselves in danger by carrying out routine tasks that really do not need to be done, such as the maintenance of the navigation lights. Mr Montague advised that the site will be inspecting the state of the structures every year using photographic evidence obtained from drones. If they become really dangerous to the public, then the site will look at accelerating the removal of the structures sooner.
- 3200 Chair was looking at a joint project or partnership funding from an environmental or tourism pot that could bring about a solution a lot sooner. For now, Chair would like to register that the structures may impact local residents and others that use the water. Mr Montague advised that the structures would not be demolished without consultation.
- 3201 Ms Girling was concerned that the structures do not get any worse and wondered if there was any emergency plan should the rigs give way. Mr Montague assured Ms Girling the issue would be resolved if they got to such an intolerable state but confirmed the LTP is to remove the structures in 2023. Chair believes that there should be a wider meeting on the subject.
- 3202 Ms P Hogan raised concern about the navigation lights and Mr Montague assured her that Magnox would give the local fisherman and organisations due warning before any navigation aiding is removed.
- 3203 Mr T Branton wanted to know the scope and extent of the work the divers will undertake. Mr Montague advised that the main job is to cut up the old fuel skips to get them out and packaged. He explained that it is a change of strategy and philosophy for the business as carrying out the work under water shields the divers and reduces the dosage. This is a common practice in America but has only been used once or twice in Magnox. Mr Montague went on to explain that the American regulations are different to the UK so

equipment had to be upgraded and training had to be given on UK regulations, which had taken longer than expected.

- 3204 Mr Wilkinson wondered whether there was a better way than putting divers in the ponds. He argued the fact the dose is low, does not mean it is safe. Mr Wilkinson highlighted an issue in 1983 when Greenpeace put divers down to the undersea section of the Sellafield discharge pipeline to block it because it was discharging 2m gallons of contaminated water a day in to the Irish sea. He said they were widely criticised by the nuclear industry for risking the lives of the divers, yet here, Magnox are putting divers in to a known contaminated environment and questioned whether in this day and age, there was not a better way to retrieve the skips and keep the dose down. Mr Montague believes this is the best way to keep the dose down and reiterated that it will be lower than working in air as the water gives all the shielding. He went on to explain that there is a balance of risk and the company had done a huge amount of optioneering work on it because it was a new strategy and one that Magnox had rigorously challenged. On the balance of dose, Mr Montague believes this method is far lower for the individuals, the number of people and the collective dose and so the individual dose risk will be lower.
- 3205 **Chair wanted to hear the view from the regulator and the staff representative from Sizewell A on that point as the staff or the regulator would not allow people to be put in a situation if they felt it was unsafe.**
- 3206 Mr Wilkinson wanted clarification on the use of the reinforced yellow Ductile Cast Iron Containers (DCIC) that the group optioneered on a few years ago. Mr Montague confirmed that Sizewell A will continue to use the yellow boxes which, once filled and with relevant planning permissions given, will be sent to the Bradwell interim storage facility. Mr Wilkinson wanted to know if all Sizewell A's FED had gone or is still destined to go to Bradwell. Mr Montague advised that all Sizewell A's FED is still at Sizewell and are expecting to send around 24 Intermediate Level Waste (ILW) containers to Bradwell.
- 3207 Chair wanted clarification on the need to build a structure to be able to get the FED out of containment. Mr Montague confirmed that it would be an external containment that will be bolted to the side of the FED vaults – FED will be retrieved from the top of the vaults, sorted into drums, compacted as secure waste packages and sent on. Chair advised that the group would need a separate presentation or a discussion on ILW packaging – how it is extracted from site and where it will go for reassurance to the public. Mr Montague confirmed that only Bradwell would be carrying out dissolution and the FED retrieval options are only at the concept stage at the moment. When a full design is decided upon, Mr Montague would be happy to explain how it will work. Chair advised Mr Montague that the group is quite experienced in carrying out optioneering exercises with Sizewell and would like full engagement with the options so they are fully informed and should they be asked, have the confidence to answer questions from members of the public.
- 3208 Mr Wilkinson is uncomfortable with the fact that the FED generated at Sizewell A will go to Bradwell only for the simple reason that the Bradwell environment in which it will be discharged is far more sensitive than the coast off Sizewell. Mr Montague reiterated that Sizewell A will not be dissolving FED at Bradwell – it will be sent to Bradwell in a secure container to be put into a secure store and there is no intention to dissolve Sizewell A's FED. Mr Montague went on to say that dissolution had been tried at Bradwell and they found the process to be far slower than expected. Sizewell A have looked at different options for the FED – one of the options was to build a big waste store on every Magnox plant which would not be responsible, not cost effective and there is no need for it as Sizewell A waste volumes are relatively low and there is room at Bradwell to store it. Mr Wilkinson went on to say that there is a principle at stake which is about looking after the sites own spent fuel and radioactive waste that has been generated by Sizewell A and not exporting it to other sites to look after it. Mr Montague responded by advising that there is also a principle to protect the tax payer and getting best value from the infrastructure built – and building a storage facility on every Magnox site was not cost effective.
- 3209 Mr Wilkinson went on to say that however many number of years Sizewell A has left to decide on a long term solution for the FED (either by sending it to a repository or sending it

to Sellafield), he does not like the idea (which the group also expressed at the optioneering meeting) of sending Sizewell A waste to other sites to look after especially with the long term consequences that it will be reprocessed or treated in a way which is going to contaminate a much more sensitive environment than the one here and that is the Bradwell estuary.

- 3210 Chair commented on a missed opportunity when Sizewell B built a storage facility for spent fuel. With a little more planning, the ILW for Sizewell A could have gone in that facility. Chair invited Mr Bill Hamilton from the NDA to comment. Mr Hamilton briefly told the group that the whole issue of consolidation of waste has been in the public domain since the NDA published its second strategy for consultation in the Autumn of 2010. The NDA have been very open about it and of course, safety is the first priority but there is a need to look at the cost to the taxpayer because this is funded through taxation. Mr Hamilton went on to say that the NDA have been consulting on waste consolidation for six years at local, regional and national level and this is the way forward that has been agreed by subsequent governments and now is the subsequent strategy. The NDA's latest strategy was published for consultation last October that carried on the consolidation theme and was approved by the government as recently as March this year and published in April after a considerable amount of discussion.
- 3211 Chair wanted to know if Sizewell A's ILW could be stored at Sizewell B as there is spare capacity. Mr Montague advised that spent fuel and ILW cannot be stored in the same facility as it compromises operational procedures with the problem that the building will be open very infrequently, perhaps on an outage basis whereas Sizewell A will be sending packages far more frequently to colleagues within Magnox to a storage facility that has been purpose built to hold ILW. Mr Montague also argued that Sizewell B would not have the requisite lifting equipment to handle the DCICs and it is a fuel store not a waste store which is totally different. Chair maintained that the Dry Fuel Store (DFS) is a waste store because 'spent' to the public means 'finished with'. This has been acknowledged with the government and EDF strategy as there are no plans to reprocess the spent fuel. Chair went on and commented that if there are no plans to reprocess it and it cannot be used in a generating station, it is a resource with a zero value and so, in the eyes of the public, it is classed as waste. Mr Montague reiterated that ILW and spent fuel stores are different.
- 3212 Mr M Taylor, Co-opted member and Friends of the Earth, asked how Sizewell A will achieve certain statuses before it gets into Care & Maintenance and wanted to know particularly about the use of the railhead, how the railway would be used in the future and whether there would be any heavy impact from the dismantling programme at certain points. Mr Montague confirmed that if Sizewell A needed to engage and comply with planning and transport regulations then obviously they will, but there are no plans for any big increase in vehicle movement at the moment.
- 3213 Mr Taylor was also concerned that as there was still 184 staff on site, was Sizewell informing the local authorities of the impact that might have on the local jobs market and whether that is going to be a major problem. Mr Montague advised that as Sizewell A is a shrinking organisation which is due to close, he does not foresee the company seeking large numbers of personnel. He explained that when Sizewell A start the ponds decommissioning, Magnox will be moving existing teams from other sites with the relevant experience and skills. He cannot envisage a time when they will be employing significant numbers of local people.
- 3214 When no further questions were forthcoming, Chair thanked Mr Montague and also thanked him for donating a painting depicting the construction of the Sizewell A site to the Long Shop Museum.

3b. Mr Andrew Jakeways, Site Inspector, Office of Nuclear Regulation (ONR)

3215 Mr Jakeways delivered the following presentation:

- Inspections and visits: ONR inspections were undertaken on the following dates:
 - 28 April 2016

- 28-30 June 2016

In this period inspections covered the following:

- Licence Condition 11 (LC11) – Emergency Arrangements (Shift Exercise)
- Licence Condition 13 (LC13) – Nuclear Safety Committees
- Ionising Radiation Regulations (IRR99)
- Licence Condition 11 (LC11) – Emergency Arrangements (Level 1 Demonstration)

ONR judged compliance with IRR99 and LC13 to be adequate. No significant issues were raised.

In relation to LC11, ONR observed an adequate shift exercise to support approval of the revised emergency arrangements. However shortfalls were observed on a subsequent Level 1 demonstration due to localised contamination control and use of Radiation Protection Equipment (RPE). A partial re-demonstration has been agreed.

ONR attended the following meetings with the licensee:

- 28 April 2016 – permissioning plan for revised emergency arrangements
- 24-25 May 2016 – Annual Review of Safety Security and Environment (ARoSSE)
- 28 June 2016 – review of Lifetime Plans (LTP).

Mr Jakeways advised that there were no significant date changes for Sizewell A on the LTP – the main change is that there is no requirement anymore for an ILW temporary waste store.

- Other matters:

Two minor incidents reported to ONR in this period:

- Environmental Survey results – media/stakeholder interest
- Shift manning levels

No Enforcement Notices were issued during the period

Three Licence Instruments issued:

- LI 514 – ONR approved the revised Nuclear Safety Committee Terms of Reference (LC13 (3))
- LI 515 – ONR approved revised arrangements for urgent safety proposals (LC13 (12))
- LI 516 – ONR approved the revised site accident and emergency arrangements (LC11 (3)) – implementation of contingency planning arrangements.

- ONR matters:

- Chief Nuclear Inspectors Annual Statement – ONR published its Annual Report and Accounts for 2016/17. This includes the CNI annual statement, which provides an overview of activities and hazard/risk for each facility, and provides a regulatory judgement on regulatory attention required for each licenced site
- Chief Nuclear Inspector Summary Plan – outlines high level regulatory milestones to delivery ONRs strategic plan, and our approach to delivery of safety and security regulation across nuclear facilities
- New regulatory structure – ONR has revised its regulatory structure to provide balanced and effective delivery of the current and future demands:
 - o Operating facilities
 - o Sellafield and Decommissioning Fuel and Waste (DfW) programmes
 - o New reactors, design assessment, construction and licencing

- ONR reports are published and available on: www.onr.org.uk

- 3216 Chair wanted a little more information on the two minor incidents. Mr Jakeways advised that both were very minor – one being related to the Strontium-90 (Sr-90) survey – this was not an incident to the Sr-90 results because that is reportable through the environmental regulator. However, within the reporting criteria, anything that sparks media or stakeholder interest becomes a reportable incident to the ONR, so this was more of an administrative submission. The other incident was the shift manning levels – this is perhaps a good example of the kind of report the ONR receive on manning levels – the site team was at full complement but within the licensee’s arrangements, standby personnel are available on pagers for each shift, however, when they carried out a routine pager test, the Occupational First Aider (OFA) was not immediately contactable, so the site arranged an alternative OFA which did not affect shift manning. Mr Jakeways explained that there was not a period where the site did not have the capability to respond to an event, it was very much that, within the emergency plan there was this challenge to the manning level which required the licensee to respond and make alternative arrangements. Mr Jakeways reiterated that there was no capability gap or any concern that the licensee could not have responded. Chair advised that there have been issues in Suffolk with concerns about the Fire Service pagers not working to full capacity.
- 3217 Mr Wilkinson was surprised to see a lot of new licence instruments and wondered why the ONR need to issue new instruments on what had been, in their terms, successful processes. Mr Jakeways explained that due to the Magnox restructuring, the Nuclear Safety Committees were combined and have become a regionalised attendance. That affects the approved set of arrangements, which once approved, cannot be changed. Any amendments to those arrangements require a new License Instrument (LI) to be approved. These were all assessed by the ONR and the revised arrangements with associated assessment reports remain adequate on all the new LIs issued. Both LI 514 and LI 515 are related to restructuring and the changes to the Nuclear Safety Committee arrangements. LI 516 is a revision to the accident and emergency arrangements on the site which is a new approach that has been implemented on the Magnox sites for emergency response. The revision provides a scalable response as and when decommissioning programmes come to the site. When activity increases, it provides the ability for the programmes to escalate their emergency response. When the project finishes, there is no longer a requirement for an enhanced response and therefore this new LI gives flexibility for the emergency arrangements.

3c. Mr Phil Fahey, Environment Agency (EA)

- 3218 Mr Fahey began the presentation by advising members of an error in his report under Current Regulatory Activities which read: *‘This includes retrieving a failed fuel element currently held in the pond itself which will need special consideration’* this should read: *‘This includes retrieving a remnant of a failed fuel element ...’* Mr Fahey explained that the actual fuel element went to Sellafield a few years ago and there are just a few high dose rate items in the bottle that contain that element. Mr Fahey confirmed that there is no fuel and the site has been defuelled.
- 3219 Mr Fahey went on to say that the EA has carried out two inspection visits since the last SSG meeting and apologised for his absence at that meeting. The visit on 19-20 July 2016 was carried out with the ONR on the management arrangements for aqueous discharges and the state of the active effluent treatment plant – both inspections did not find any non-compliance and there were a few recommendations from the inspections.
- 3220 Mr Fahey updated the group on the Environmental Monitoring Programme and the operator, Sizewell A, have nearly completed monitoring all the samples that the EA asked them to do and the levels of Sr-90 have come down from 3.8 Becquerels (Bq) per kilogramme (kg) to 1 Bq per kg or less than the limit of detection. Mr Fahey admits that there may still be some Sr-90 in the environment and Sizewell A are looking into the comparisons in the laboratories where the samples were sent as part of their investigation. One lab had a higher limit than the other and so the Sizewell A are not sure whether it is a lab issue or if it is a real result. However, he felt it safe to say that the levels do not seem to

be going up and as the levels are so very low, it would be very hard to formulate any conclusions. Mr Fahey explained that there is Sr-90 in the environment from weapons testing and Chernobyl.

- 3221 Mr Wilkinson wanted to know when the Sr-90 will be decayed away to nothing and wanted to know its half-life. Mr Fahey believes the half-life of Sr-90 is around 29 years. Mr Wilkinson suggested it would be 290 years until it was completely decayed away. Mr Fahey reiterated that there was a lot of Sr-90 in the environment from weapons testing but Mr Wilkinson believes this does not make the situation justifiable. Mr Wilkinson went on to ask whether the EA had any idea on how it got there. Mr Fahey could not answer but confirmed that the levels are so very low that there is no concern to health. Mr Wilkinson suggested that if the EA did not know how it got there, it could happen again. Mr Fahey could not say the Sr90 measured was from Sizewell. The EA are talking to the operator to ensure they keep the situation under review.
- 3222 Chair advised that the town council and the local community in Aldeburgh are keen to have information that both reassures them and they can understand whether it is a big issue or not. Chair went on to say that just because Sizewell A found it, it may not necessarily be a Sizewell A issue and it may have come from weapons testing in the 50s. Chair was also concerned that the beach is a very large environment and there may be more out there. Chair understood and trusts the advice the EA have given the group that there is no concern in the discovery in one sample but as it is a very large area, the group would like a watch in brief on this. Mr Fahey advised that since the discovery, the operator did monitor north and south of the beach and did not find anything from the samples. **Once the sampling and the Sizewell A report is complete, it will be made fully available to the SSG.**
- 3223 Cllr T Hodgson, Suffolk Association of Local Councils, wanted to know if the discharge limits been reassessed since the station stopped generating. Mr Fahey advised that the EA have not reassessed the limits as the station would not get to the levels when generating, however, as decommissioning begins, levels may start to go up again. The view was to keep the limit as it is, see how the decommissioning goes and then look into it. What the EA do not want to do is reduce the limits down only to put them up again. Mr Fahey confirmed that as part of their environmental responsibilities, Sizewell A have to carry out a dose assessment at the end of the year based on their discharges which are passed on to the EA.
- 3224 Cllr Hodgson was concerned that because the levels were so low, there may be a danger that Sizewell A may lose attention in the matter. Mr Fahey advised that it is a low percentage and perhaps it could be looked at in real terms, but it is only by a few gigabecquerels (GBq). Mr Montague confirmed that the EA ensure Sizewell A continually seek to minimise all discharges through EA inspections and Sizewell's own internal assessments from their Environmental team. If something different changes, Sizewell will use the best available techniques assessment to ensure the best opportunity is taken to minimise discharges in the safest and best way they can. Mr Fahey concurred that Sizewell A use the best available techniques and are challenged to prove the best option to satisfy the EA.

3d. Mr Bill Hamilton, NDA

- 3225 Mr Hamilton began by updating members on the judge's ruling in the *EnergySolutions vs NDA* case. A High Court judge has ruled against the NDA following a four-week trial to examine the claim for damages submitted by *EnergySolutions* who were the previous owners of the contract to decommission the Magnox sites on the NDA's behalf. Mr Hamilton advised that the case had not finished and that was one particular ruling by the judge. The judge ruled that the NDA had not managed the scoring of certain elements of the competition between the four bidders and it only examined the scores between two, the winning bidder and *EnergySolutions* consortium. The NDA have decided to seek leave to appeal against the judge's decision and if allowed it will obviously have an impact on the timescale of the case. Before the judge knew the NDA were going to seek leave for appeal, he advised the final hearing to reach a quantum due to *EnergySolutions* in damages would

not be heard until the Autumn of 2017 at the earliest. Mr Hamilton advised that it was not about changing the result of the competition, it was simply about a claim for damages by one of the bidders who felt they were treated unfairly. The judge made a ruling that he believes there is a case to answer by the NDA but there is absolutely no question or understanding about what the quantum will be which could range from zero to several millions of pounds. Mr Hamilton assured members that it will not impact on the Magnox programme in terms of funding at the moment.

- 3226 Mr Hamilton confirmed the NDA now reports to the newly created Department for Business, Energy and Industry Strategy (BEIS).
- 3227 Mr Hamilton then went on to draw attention to the Panorama programme about safety at Sellafield. The NDA worked with the Panorama producers and reporters for seven months in the lead up to the programme. The NDA felt that they acted in an open and transparent manner given the safety and security restraints at Sellafield. The Panorama team interviewed the Chief Executive of the NDA and the Head of Safety at Sellafield Ltd, they were given everything including reports from the public domain and were helped through complex material so they could understand the Sellafield situation. The NDA and Sellafield Ltd were therefore disappointed by the sensationalist tone of the programme but were pleased to see the Minister for BEIS, Baroness Neville-Rolf, categorically support the ONR and their view that the Sellafield site was safe.
- 3228 Mr Hamilton finally talked about socio-economics. The NDA are currently working very hard on their socio-economics strategy across the whole of the UK to ensure they do more to support the communities around the sites. Mr Hamilton went on to say that it is not just about donations but much more about socio-economics and the benefit that can bring to a community. The NDA are mainstreaming the socio-economics strategy by making sure across all the activities, the work is done at the most advantageous terms for the community within which it is being carried out. Mr Hamilton exemplified the nuclear archive being built at Dounreay – as part of the contract, the developer had to employ a minimum number of apprentices from the local area. Mr Hamilton hopes that he and his colleague, Mr Jonathan Jenkin will be able to report back further examples at future meetings.
- 3229 Chair welcomed the last statement from Mr Hamilton on socio-economics as currently it relies on local organisations and local councils to write business plans to get socio-economic funding as opposed to it being more pro-active.
- 3230 Mr Wilkinson wanted to know the cost for the legal case. Mr Hamilton advised that current legal costs are around £4m but did not have the projected costs for 2017.
- 3231 Mr Wilkinson went on to talk about the Panorama programme and worried that the nuclear industry has put the country in a helpless position as Sellafield seems locked into a process of reprocessing spent Magnox fuel and storing waste which cannot be stopped. Mr Wilkinson was also disappointed at the NDA and other ‘cheer leaders’ of the industry who will not acknowledge that there are some fundamental flaws at Sellafield. Instead of working in opposition to the SSGs and NGOs, the NDA and others should be working together to help solve these problems.
- 3232 Mr Hamilton dismissed the accusation that he is a ‘cheer leader’ for the nuclear industry – he stated that he is an employee of the Nuclear Decommissioning Authority and his responsibilities and interests begin and end with nuclear decommissioning. Mr Hamilton understood Mr Wilkinson’s tone and agreed with most of what he said. Mr Hamilton did not agree with Mr Wilkinson’s view that the NDA were not open, honest and transparent and reiterated how accommodating the authority had been with the Panorama programme. Mr Hamilton went on to say that the NDA have also declared four plants at Sellafield as ‘intolerable’ in the NDA’s strategy that was published in draft form in 2010 and are demanding money from the government to continuously decommission those plants.
- 3233 Mr Hamilton went on to say that a lot of the stats used in the programme dated back from four to six years ago. He admitted that there are huge issues at Sellafield and it is the most hazardous nuclear plant on the planet which is due in part to 60 years of activity. Sellafield started off called Windscale, built in the late 40s at the height of the Cold War and built at

enormous speed in secrecy to allow Britain to have an independent nuclear deterrent. Both Conservative and Labour governments of the day went forward with that critical policy for the UK and Sellafield was built with no understanding on how to decommission it.

- 3234 In terms of finance, Mr Hamilton advised that £2bn a year is spent on Sellafield with a total of £3bn across the whole NDA's estate. It is because the NDA has declared those four plants to be intolerable and its demands of government that financing is no object to the decommissioning programme. Mr Hamilton highlighted some of the work being carried out such as sludge retrieval from the bottom of the ponds and progress cutting through the concrete walls of the silos – these are complex hazardous tasks that have to be done as safely as possible and the safety of the workforce and the community are absolutely paramount.
- 3235 Mr Hamilton confirmed that the NDA are shutting down Sellafield as fast as they possibly can and it is forecast that the Magnox reprocessing plant and the Thermal Oxide Reprocessing Plant (Thorp) will be shut in the next three years but safety will not be compromised for speed. Mr Hamilton advised that there are 50 ONR safety inspectors based on the Sellafield site and the workforce has 200 health and safety representatives trained independently of the management to act independently on behalf of the workforce to report anything that they see anything as wrong or dangerous. More widely, of the 10,000 employees at Sellafield, 20% of the roles are predominantly are around safety.
- 3236 Chair thanked Mr Hamilton and noted that it was helpful to hear his passion in terms of the commitment to shut Sellafield down as safely as possible. Chair highlighted an outstanding action with Mr Jonathan Jenkin since March 2015 for a presentation on Sellafield when members raised concerns about it being UKs most challenging nuclear complex. It is helpful to learn that Sellafield will be focused on in a real way.
- 3237 Ms Girling distinctly remembers asking for a presentation about Sellafield as Sizewell B's DFS was a far better solution than sending spent fuel off somewhere where there were already difficulties. Ms Girling went on to say that she admired Mr Hamilton and what the NDA are doing as the country had created this muddle and allowed nuclear power to go on and on without recognising the difficulties at Sellafield. Ms Girling wanted to know, in terms of financing the project, is enough being spent to actually manage the difficulties. There has been a serial lack of investment by various governments from around 50 years and now it is left to the NDA and others to deal with it. Ms Girling asked whether central government are aware of the urgency and the absolute necessity to get the Sellafield situation sorted out before there is any further investment in new build. Ms Girling went on to explain that Together Against Sizewell C's (TASC) main objection is creating more waste when there is still no solution for the waste already created. Hypothetically, Ms Girling also wanted to know, with health and safety in mind, how much money and how much more expertise would be needed to speed up the process to get the Sellafield into a far better situation than it is today.
- 3238 Mr Hamilton said that in terms of the total liability of Sellafield, the NDA has calculated that 50% has to do with defence legacy and historical military usage and what that left behind. He explained the role that Sellafield played with both the Windscale reactors producing the material for the hydrogen bomb and Calder Hall, although the first civil nuclear power station had a strong major element in producing weapons for the independent deterrent, as was a significant element of the Chapelcross nuclear plant. Some Magnox material waste and the fuels from Calder Hall and Chapelcross were used for civil purposes and bearing this in mind, Sellafield is unfortunately a very special place dealing with a very significant military legacy on what is a civil site.
- 3239 In terms of the amount of money, Mr Hamilton reiterated the 'intolerable' four plants, two ponds and two silos, declared in 2010 so the NDA could legally make a claim to government for funding and the last two spending reviews have produced a positive response. The new minister for BEIS, Baroness Rolf and her aids quickly came to Sellafield and was one of her first appointments as minister. She spent two days for a series of top level meetings with NDA executives and Sellafield Ltd bosses and a thorough visit of the site to show exactly what the challenges are. Baroness Rolf came away from

the visit saying that she was very proud to see the focus on safety at the site and was pleased to see the progress being made.

- 3240 Mr Hamilton explained that Sellafield was the most compact and complex nuclear site on the planet and there were physical limits on the amount of staff working at any one time. The links between the buildings are incredibly complicated and Mr Hamilton genuinely feels that money being spent is the maximum on the four plants the NDA think are the highest risk.
- 3241 Finally, Mr Hamilton advised the group that the monitoring at Sellafield is exceptionally detailed and the site is safe today. The NDA are working as quickly and as safely as they can to clean up the nuclear legacy so future generations do not have to.
- 3242 Mr Taylor was concerned about the facilities supplied and management of the local SSGs and wondered if the NDA would be prepared to look at other ways of delivering the service – not necessarily through Magnox but as a more general approach to stakeholder engagement. Mr Hamilton advised that the NDA was concerned when Magnox decided to change the way in which they would administer the SSGs. A number of meetings with SSG Chairs were held and the NDA were influential in increasing the resource to the SSGs which would be kept under review. Mr Hamilton has spoken to a number of SSG Chairs around the country and they are happy that arrangements were working well and therefore, he has no plans to review the operation of the administrative support to the Groups.
- 3243 Chair updated Mr Hamilton that this SSG are tracking any concerns or issues they have locally. Chair has personally felt that running the SSG has become more demanding. She went on to say that the Sizewell Stakeholder Group cannot be compared to others as they have the only generating Pressurised Water Reactor (PWR) in the country and therefore the agendas are fuller as there is a lot more to discuss. Chair advised that there is a meeting of Chairs in November and she keeps in regular contact with the rest of her colleagues around the country. Personally, Chair has found the organisation challenging as she feels that some items have not been progressed as quickly as they would have done a couple of years ago.
- 3244 Mr Taylor feels that EdF has a responsibility for not only the PWR but with other aging Advanced Gas-cooled Reactors (AGRs) with a number of issues and feels that it is very important that those particular groups around those sites get a very good hearing. Mr Taylor wanted to know if the SSGs could be refunded so EdF could take control of the meetings. Mr Hamilton advised that the NDA has no responsibility on stakeholder engagement at EdF sites as it does not fall within the NDA remit.
- 3245 Mr Griffith-Jones wanted to know how long it will take to decommission Sellafield at £2bn a year. Mr Hamilton advised that the decommissioning of Sellafield will go on for a very long time – in excess of 100 years but he certainly does not see spend remaining at £2bn a year over the next 100 years only for the foreseeable future.
- 3246 Mr Griffith-Jones was surprised by the NDA's description of the new vaults Low Level Waste Repository (LLWR) as 'an important national asset'. Mr Hamilton argued that the repository is a highly engineered facility that takes low level nuclear waste/materials, not just from the NDA estate, but from universities, hospitals, commercial companies and a whole range of consigners all over the UK and therefore it is an important piece of national infrastructure.

Meeting stopped for a small comfort break

4 SIZEWELL B REPORTS

4a. Mr Martin Cubitt, Plant Manager, EdF

3247 Mr Cubitt delivered the following report and presentation:

- Safety performance and staffing:
 - 2116 days since last Nuclear Reportable Event (over 5.5 years)

- 548 days since our last EdF Energy Lost Time Incident (LTI) (over 1.5 years)
- 660 days since our last contractor LTI (over 1.5 years)
- 654 days since our last Environmental Reportable Event (over 1.5 years)
- 529 EdF Energy staff including 20 Apprentices
- 250 year round contracting partners
- Operational Safety Review Team (OSART):
 - The International Atomic Energy Agency (IAEA) review of Sizewell B has been published
 - Website link: <https://www.gov.uk/government/publications/report-of-the-operational-safety-review-team-osart-mission-to-sizewell-b-nuclear-power-station-5-22-october-2015>
 - There will be an OSART follow up review at Sizewell B in the first half of 2017
- New recruits:
 - 51 Apprentices joined EdF Energy this summer
 - 4 new recruits joined Sizewell B in August, all from local schools
 - HMS Sultan in Portsmouth for 2 years, on station for 2 years
- Supporting the community:
 - Sizewell B pledged £500 to Aldeburgh carnival
 - Apprentices assisted as local carnival as stewards to ensure safety of visitors
 - Staff also helped to judge this year's carnival procession
 - This volunteering in company time is part of EdF Energy's initiative called 'Helping Hands'
- Sizewell B and Galloper Wind Farm Limited community fund:
 - Summaries of Projects Awarded to date totalling £32,700:

○ Leiston Town Football Club – grounds equipment	£5000
○ Leiston Town Athletic Association – improve sustainability	£5000
○ Leiston Shining Stars Nursery – sensory gardens	£1000
○ Leiston Town – pastor scheme	£4000
○ Leiston Young People Taking Action – Young Parents Group	£2000
○ Offshoot Foundation – film making workshop Leiston CYDS	£1000
○ Middleton Cricket Club – new cricket square	£5000
○ Aldeburgh & Thorpeness Ladies Rugby Team – kit	£700
○ Station House Community Connections – education desks	£5000
○ Theberton & Eastbridge – portable mini speed device	£2000
○ Saxmundham Smile Café – equipment and training	£2000
- Radioactive discharges during our fourteenth Refuelling Outage:
 - See Appendices 1-4 in the report
 - Radiation levels in the UK are monitored regularly and results are published from the Environment Agency and Food Standards Agency
 - To view the results at: <https://www.gov.uk/government/publications/radioactivity-in-food-and-the-environment-2014-rife-20>

- 3248 Mr Wilkinson advised that the Appendices at the back of the report meant very little. He feels that the intention of the graphs is to show that the discharge levels were well below the quarterly notifications and the annual limit. He examined Appendix 1 that illustrates a chart with a flat line that provided no information apart from the fact that the Noble Gas discharges were perhaps undetectable, but when compared with Appendix 3, the Noble Gas discharges in terms of concentration are quite variable. Mr Wilkinson was concerned therefore that there had to be some variation in the Appendix 1 flat line. He thought it was therefore worthwhile having a look at what the potential impact might be in terms of health, deposition and a bit more information about these discharges to a point where the public can find out what it actually means and wondered if that was possible as he had asked for this information for many years. Mr Cubitt advised that these charts were produced as a comparison of Sizewell B's discharges against the German power station, Gundremmingen that Mr Wilkinson previously provided. Mr Cubitt went on to say that in order to make sure they were comparable; Sizewell B has illustrated their discharges on the same scale as Gundremmingen so there is an exact comparison.
- 3249 Mr Wilkinson pointed out that the purpose of the German study was it supported the contention that the discharges around the outages could be or have the potential to be linked to the higher incidence of child leukaemia in the under-fives within a 5km radius of all the nuclear plants. That evidence has been reinforced by lots of other reports that have come out from different countries and Mr Wilkinson would like to see experts from both sides looking at the potential health impacts. Mr Wilkinson advised that the group have been asking DECC (now BEIS) for some of their experts from the Committee on Medical Aspects of Radiation in the Environment (COMARE) to talk to the critics from the NGO side and examine where these variations on uncertainties lie to enable the group and the community to come to a bit more of an in-depth understanding on what the figures actually mean. Mr Cubitt responded that the discharges show a dose level to the public and the RIFE report looks at all the discharges and the effect on the public.
- 3250 Mr Wilkinson reiterated the point that there is no link between dose and impact which has been discredited a long time ago and there is more and more evidence coming to light to support that theory. Mr Wilkinson wanted to know what the effect of the discharges are because there is a lot of difference between exposure, whole body dose, inhalation and different types of radionuclides – there are all sorts of variables that need to be examined. It cannot be said that just because the dose is low, the impact is low. Mr Cubitt advised that this has been discussed on a number of occasions and Public Health England (PHE) and the EA have given presentations to the group. Mr Wilkinson asked whether EdF acknowledge that there are uncertainties. Mr Cubitt advised that EdF comply with the legal framework which is based on the risk assessments carried out by PHE and a number of other learned bodies. He believes that there is enough information to be relatively certain about the health impact of radiation which is constantly adjusted and garnered as a result of future evidence which is internationally complied with. Mr Cubitt advised that EdF comply with the rules and regulation and the best international practice, but he agreed that there are a range of views on the subject. Mr Wilkinson believes that the various organisations should all acknowledge these uncertainties and support the call for a joint fact finding discussion between critics and supporters of the IAEA to bring the divergence of opinion closer so there is a bit more certainty about what the impact is.
- 3251 Chair summarised that there is some uncertainty and some concern from the wider question around the impact of low levels of radiation. This has been minuted in the past and it is a national and international debate that the group will not be able to solve in the meeting today. The group has expressed a view and the industry has heard that view. They have given their current position and the regulator has also commented on this view in the past and given their stand point – it has been noted that it has been raised again today.
- 3252 Mr Robert M^{ac}Gibbon, resident of Westleton, raised the issue of traffic and speeding in the area. It was very noticeable during the outage that the traffic increased in the morning and afternoon and there must be a relationship to Sizewell with the presence of a large industrial complex. With this in mind, Mr M^{ac}Gibbon wanted to know if EdF can help the community to erect more signage. Mr Cubitt said that Sizewell B does recognise,

particularly during an outage, that there is an issue and when complaints are received, the matter is taken very seriously and staff are briefed to reinforce the message on unacceptable driving behaviour. When this was initially raised, Sizewell A and B did consider paying for some flashing speed signs and are still happy to help in that respect.

- 3253 Chair would like to hold a separate sub-group meeting in order to discuss the OSART report and put questions to Sizewell B for a group response.
- 3254 Mr Griffith-Jones raised a query from the OSART report that mentioned the extension of the lifetime plan of Sizewell B and wanted reassurance that Sizewell B only has a 40 year life. Mr Cubitt confirmed that Sizewell B does have a 40 year life however OSART have advised that if they want to apply for an extension, they will need to make sure they give an adequate timescale.
- 3255 Mr Griffith-Jones raised the issue of how the Radiation (Emergency Preparedness and Public Information) Regulations (REPPiR) seems to determine how Sizewell B operate. The OSART report believes that should not be the case, and looking at the reasonably foreseeable accident, it quotes: 'this approach meets UK regulations but is different for that used in most other countries who base plans on events involving severe damage to the reactor fuel' (OSART report, 2015, p. 56). Mr Griffith-Jones wanted to know if Sizewell B will follow OSART's advice which is the suggestion that the station should consider benchmarking its methodology against the methodology used by similar stations in other countries involving severe damage to the reactor fuel. Chair intervened and advised that she had already engaged with the local MP and asked her to raise with national government why the UK is not following the recommendations as other countries in Europe and beyond are. At the moment, EdF are following the UK government and UK regulations in this country. Mr Griffith-Jones accepts Chair's point, but the OSART report is specifically to EdF and specifically saying to them, regardless of what the government is doing, this is what Sizewell B should be doing as it is relevant to EdF. Chair agrees that this will add weight to the overall question that has been raised nationally. Mr Cubitt advised that Sizewell B will benchmark and respond to OSART on all the recommendations and suggestions in the report. EdF's response will get a huge amount of overview by both the UK government and OSART and will be available in the public domain once complete.
- 3256 Mr Wilkinson wanted to know that given the controversy over the falsification of paperwork associated with 200 components that had been cast at Le Creusot forge in France – does Mr Cubitt feel comfortable about the safety level at Sizewell B given the outage was proceeded by the ONR's permission to restart the Sizewell B reactor before they had absolute confirmation from the French authorities that no component parts had gone into Sizewell B. Mr Cubitt confirmed that he was confident with the arrangements.
- 3257 Mr Taylor wanted confirmation that any lifetime extension of Sizewell B would be down to an engineering assessment because an outstanding action relating to the decision making on the AGRs appears to be made on commercial grounds rather than engineering and there was a question about public faith. Mr Cubitt advised that such decisions are always engineering led and any plant life extension will effectively have to be justified in terms of the longevity of the plant and any determination taken from the 10 year Periodic Safety Reviews (PSR). Effectively, the 10 year PSR looks at the plant against the modern standard rather than the standard when it was constructed that determines any best practice. Best practices are then implemented in the next 10 years to ensure that the plant is constantly reviewed and updated in addition to other reviews it gets. Sizewell B has just completed its second PSR.
- 3258 Ms Girling wanted to know if the Dry Fuel Store (DFS) had been licensed yet and when is the first fuel due to be stored. Mr Cubitt advised that active commissioning is due to take place in the last quarter of this year. The last safety case has to go through the Nuclear Safety Committee (NSC) and then the ONR for their assessment.
- 3259 Ms Girling wanted to have confirmation of land ownership and wondered if Sizewell B can supply the SSG with details of all their land assets as some local people are looking at neighbourhood planning. Ms Girling was particularly concerned about the gatehouse near

the crossing which has been left empty. **Mr Cubitt confirmed that he will provide land asset details as requested.**

3260 Mr Cubitt went on to advise that asbestos has been stripped from the old District Survey Lab (DSL) which had left the building without the guttering and barge boarding. Unfortunately there is not much that Sizewell B can do with the DSL and the plan is to put the building into a kind of care and maintenance to support the infrastructure that runs through it. Chair advised the group had already expressed an interest in the building and would like to be in negotiation for its future use. Ms Girling spoke about the Aldhurst Farm Habitat Creation Scheme and the town council's hope that it will become part of a Sizewell track, linking it with the visitor walks and the car park area to make it a whole wildlife or conservation area. Chair wanted it noted that the group would like detailed discussions with Sizewell B and other local authorities before plans are advanced to a point where it becomes impossible to change the direction of travel. Mr Cubitt reiterated that there was infrastructure within the building which has to remain available to EdF.

4b. Mr Graham Moorcroft, Site Inspector, Office of Nuclear Regulation (ONR)

3261 Mr Moorcroft introduced himself and drew attention to his report for the quarter covering April to June 2016. It had been a period of safe operation with a shutdown and fuelling outage which had a significant amount of maintenance and oversight by the ONR.

3262 During this period there have been a number of compliance inspections at Sizewell B with approximately seven specialist inspectors undertaking inspections along with any system based reviews. It also included the 10 yearly package of work to inspect the Reactor Pressure Vessel (RPV) and the results from one of the issues raised by the SSG with regards to hydrogen flaking, demonstrate that the RPV at Sizewell B does not suffer from those defects.

3263 During this period there was a visit from the new Chief Executive, Adrienne Kelbie which was hosted by the Station Director and gave her a good overview of the operations at the plant.

3264 Mr Moorcroft advised that the ONR had also issued a number of Licence Instruments (LIs) this period.

3265 Mr Griffith-Jones was concerned about the OSART report and the way the ONR carry out its regulatory work. He was encouraged by depth of the OSART inspections and what they identified. Although not intended as a regulatory inspection, it seems to go a long way beyond what the ONR does and Mr Griffith-Jones felt that he would have more confidence in the ONR if they carried out inspections like OSART. He went on to say that the report identifies areas that have been neglected and ignored going back to 1991. Mr Griffith-Jones went on to say that there were a whole lot of issues that concerned him and they should have been dealt with in a timely way.

3266 Mr Moorcroft confirmed what Mr Griffith-Jones stated that the OSART inspection was not regulatory. It is an international service offered by the IAEA and it is the first one that has been undertaken in the UK for quite some years under the invitation by BEIS. Mr Moorcroft went on to say that the OSART inspections are not rated. To put it into international context, Mr Moorcroft advised that it was mentioned at the close-out meeting that this inspection, in terms of an OSART mission to a PWR power station, was seen as a good result. It was also a good result in terms of the number of recommendations and suggestions that were raised and if it were benchmarked against other OSART reports internationally, this had quite a low number of issues raised.

3267 Mr Moorcroft advised that the ONR undertake activities against predominantly the Site Licence and attached Licenced Conditions to ensure that the licencing arrangements are adequate and are being implemented. He went on to say that the ONR have their resource prioritised against the hazard and as such they have 50 inspectors at the Sellafield site as it is the highest hazard facility and the number one priority for the ONR. The ONR have assigned site inspectors for all of the operating facilities and generally spend at least one week a month on site to undertake inspections and other activities, reviewing the Site

Licence compliance. There is a lot of other work that is not seen by the SSG in terms of site activity. Mr Moorcroft offered the group to look at the level of detailed inspections carried out for the consent to start up the reactor recently and advised that there were seven inspectors carrying out a very comprehensive review of the arrangements to support the restart.

- 3268 Mr Moorcroft summarised and advised that this is the ONR regulatory policy that they put their resources towards the highest hazard and they have the appropriate amount of resources assigned to the operating facilities. Mr Griffith-Jones asked whether Mr Moorcroft was surprised at any of the issues OSART raised in the report. Mr Moorcroft reiterated that in terms of international context, issues raised were quite low and there were some good practices identified. Mr Griffith-Jones recognised there were good practices, but feels that some of the items identified should not have happened under proper management and does not consider the ONR's response as a good excuse. Chair considered looking at the recommendations and suggestions from the OSART report in a wider remit.
- 3269 Mr Wilkinson was concerned with regards to the faulty parts scandal in France, and as far as he was aware, the ONR only has assurance from the French regulator, Nuclear Safety Authority (Autorité de sûreté nucléaire – ASN) that none of the faulty parts were used in Sizewell B. Mr Wilkinson wondered whether the ONR has reviewed or adjusted its safety risk/case in light of the scandal. Mr Moorcroft advised that the ONR are satisfied with the safe operation of the plant and if they did not believe it was safe, they would have taken action.
- 3270 Mr Moorcroft updated the group that his colleague, Andrew Holt, visited the Creusot facility in France to undertake an independent review. EdF also sent their independent assurance branch to inspect the records and any implications to the safety case will be taken into account going forward. Mr Wilkinson wanted to know if the investigation would lead to a modification of the safety case or safety risk. Mr Moorcroft advised that it is currently under review following the inspection of the records and one of the avenues could potentially be an amendment to the safety case. Mr Moorcroft will keep the group informed of any developments.

4c. Mr Stuart Parr, Environment Agency (EA)

3271 Chair thanked Mr Parr's offer for an additional meeting with the group in July and August which could not be facilitated due to the summer holidays, but the group would like to take up the offer of a date in October which could link the OSART matters to that meeting.

3272 Mr S Parr introduced himself as the EA Inspector for Sizewell B and reiterated that the EA require all nuclear operators to undertake environmental monitoring programmes around their sites and these are reported quarterly. Mr Parr delivered the following summary of results in a presentation on 'Q1 Sizewell Operator Environmental Monitoring Results':

- What do we require?
 - Define, document and carry out an environmental monitoring programme
 - Reported quarterly to EA (publically available)
 - Three months retrospectively
 - Sizewell B manages programme for both sites
 - Separate to monitoring done by the EA and Food Standards Agency
- Why do we ask?
 - Monitor environmental effects of permitted discharges
 - What, when and how
 - Objectives & Principles
 - Source-Pathway-Receptor model

- Sizewell Programme (Operator):
 - The current programme has a wide range of monitoring and sampling locations:
 - 13 radiation monitoring locations in the local area
 - 10 passive shade monitoring locations (changed monthly)
 - 3 different milk samples
 - Sampling of up to 10 species of fish, molluscs and crustacean during the year
 - 13 coastal locations for radiation monitoring
 - Biannual radiation monitoring of the strandline close to the power stations
 - Radiation monitoring of local fish equipment
 - 5 locations where grass and soil samples are taken
 - 5 locations where sand/sediment samples are taken
- Q1 Results (January – March 2016):
 - Sizewell A perimeter fence dose rates:
 - 13 fixed
 - Dosimeters
 - No unusual results
 - Annual average results ≤ 0.25 mSv
 - Off-site dose rates:
 - 13 fixed dosimeters
 - 2 arcs around site at 1km and 6km
 - No unusual results
 - Annual average results ≤ 0.2 mSv
 - Beach/estuary dose rate monitoring:
 - 11 locations monitored quarterly
 - 2 locations monitored annually
 - No unusual results
 - Net dose rates all <10 nGy per hour
 - Passive shade monitoring:
 - 10 shades deployed in an arc around Sizewell
 - Replaced monthly
 - 11 of the most common isotopes associated with operational and decommissioning nuclear power stations analysed for
 - No positive results during the quarter
 - All results less than the limit of detection (0.1-0.3 Bq per shade)
 - Milk sampling:
 - 3 samples collected quarterly
 - 12 of the most common isotopes associated with operational and decommissioning nuclear power stations analysed for
 - No positive results during the quarter

- All results less than the limit of detection (0.1-0.6 Bq per litre of milk)
- Grass/herbage sampling:
 - 5 locations sampled quarterly
 - 11 of the most common isotopes associated with operational and decommissioning nuclear power stations analysed for
 - Analysed for concentration (Bq per Kg) and loading (Bq per m²)
 - No positive results during the quarter
 - All results less than the limit of detection (<0.1-<1.1 Bq per Kg or <0.1-<0.3 Bq per m²)
- Marine sand/sediment samples:
 - Samples taken quarterly from 5 locations
 - 11 of the most common isotopes associated with operational and decommissioning nuclear power stations analysed for
 - Additional Sr-90 analysis for Aldeburgh sample:
Positive result = 0.98 Bq per Kg
Positive Cs-137 result recorded at Southwold:
6 Bq per Kg
Not unusual, similar to last quarter
- Annual contamination monitoring of fishing equipment:
 - Equipment used by local fisherman at Sizewell
 - No unusual results
 - Instrument readings were at background levels
- Fish, crustacean and mollusc sampling:
 - Oyster, mussels, herring, bass, sole and flounder
 - Collected from local fishermen quarterly
 - 11 of the most common isotopes associated with operational and decommissioning nuclear power stations analysed for
 - No positive results
 - All results within the limit of detection (0.1-1.2 Bq per Kg)

3273 Mr Wilkinson wondered that despite the fact the results on the eleven most common isotopes were all within authorised limits, does the EA have any concerns that a lot of other radionuclides, which might be more impactive, are not monitored. Mr Parr advised that the isotopes monitored are the most common and most indicative fission products found in discharges. They are easy and cost effective to monitor as radiochemical analysis and carrying out gamma-spectrometry on environmental samples is expensive. If there were problems or concerns to be had, this would be reflected in the results with the most common isotopes. Mr Wilkinson did not understand the response and stated it was very expensive to treat cancer and prevention is better than cure. He went on to ask whether some of the less obvious and less common isotopes could have potential health impact and would it be worth looking for those despite the cost. Mr Parr responded that the EA is happy with the isotopes they are monitoring but suggested, if there were particular isotopes the group would like the EA to look for, they would consider the request but reiterated that radiochemical analysis is very expensive and there is currently no driver to look for others because the EA do not see any of these indicator isotopes at high levels or levels of any concern at all.

5. Presentation on Food Habits Survey – Dr Selwyn Runacres, Food Standards Agency (FSA)

- 3274 Dr S Runacres began by thanking the group for inviting him to the meeting and thanked the community and members of the group who took part in this periodic survey. Without the information that was given in the timely manner, the FSA would not be able to gather the information necessary to carry out risk assessments. The basic data the FSA use for dose assessments comes from the habit surveys. The presentation shows the information gathered that links into the EA monitoring data used to carry out calculations.
- 3275 Dr Runacres explained that the Habit Survey is important because it looks at how a person might come into contact with radioactivity, whether that is through consumption of food or inhalation and that enables the FSA to carry out a holistic type of risk assessment (formally described as a 'total dose assessment' in the Radioactivity in Food and the Environment (RIFE) report).
- 3276 Dr Runacres went on to note that the key information required to come to a risk assessment are the levels of radioactivity found in the environment from the monitoring programmes carried out by the operators and the regulators that are published in the RIFE reports; how much of the individual food pathway is consumed and then use the dose coefficient to get a measure of the risk involved from these activities.
- 3277 The previous survey for Sizewell was conducted in 2010 and the latest survey was conducted by The Centre for Environment, Fisheries and Aquaculture Science (Cefas) in 2015 on behalf of the FSA, the EA and the ONR. Interviews were conducted with members of the public and data collected for 550 people. Sizewell habits survey report was published in May 2016 and can be found on the FSA website: www.food.gov.uk and also on the Cefas website: www.cefas.co.uk. The information will be embedded and used in the RIFE report for 2015 which will be published at the end of October/beginning of November 2016.
- 3278 Dr Runacres advised that the habit surveys are broken down into two zones. One of the areas, the Aquatic Survey, covers around 10km or more from the site considering the tidal stretches of the Blyth, Alde, Ore and Butley. Dr Runacres explained that there was not a huge difference when compared with the previous survey in 2010. It was noted that there was a slight increase in the consumption of wildfowl and the rate of fish consumption, although decreased slightly, but still remains relatively high compared to other areas.
- 3279 The main difference is the occupancy rates. Dr Runacres informed the group that this comparison does not really affect the food assessment but affects the EA and PHE results – one of the individuals or group of individuals that spent time near or in the water on houseboats in 2010 have changed their living conditions and so the occupancy rate over the sediments was reduced in relation to that which will change the results in dose assessment.
- 3280 Dr Runacres went on to talk about the Terrestrial zones. These zones cover a smaller distance of 5km around the site and look at local people who consume food produced in the area or carrying out activities in that area. Dr Runacres noted the main difference since the 2010 survey was a change in practice of a representative person or group of people who, at the time had their own cattle and so, theoretically, there is no milk consumption within that 5km area. The risk assessments will still carry on looking at milk and will still be obtaining milk samples close to the site, although Dr Runacres remarked that due to the changes and other issues in farming, this was an interesting difference.
- 3281 Dr Runacres explained the risk assessment process, using the same methodology and updating figures as and when they change. There is a consistent result that is achieved and the total dose from all major sources is recorded at 20 µSv per year. Dr Runacres used a graph to illustrate and compare doses from other practices and again thanked all members of the local community who took part in getting the information to the FSA.

3282 Chair was grateful to Dr Runacres and his colleague for their time in coming to present the information. However, Chair explained that the problem with using a comparison graph is the issue of highlighting volume rather than giving credence to the fact that different practices or organisations give different types of radiation that have different effects on the body which bears no correlation to the radiation produced by the nuclear industry.

3283 Mr Wilkinson reiterated the fact that the relationship between dose and impact has been discredited a long time ago and the entire FSA presentation is predicated on dose being low. Mr Wilkinson wanted to know if the FSA monitored a wider range of radionuclides and if those dose coefficients for those radionuclides were introduced into the calculations or if the dose coefficient for the ones that are currently monitored were different, presumably it would dramatically alter the dose figures despite the fact that the link between the dose and impact is irrelevant. Dr Runacres believed that would be the case and went on to say that the FSA use the best science available and from time to time they re-evaluate what the dose coefficient is. Dr Runacres believes that the information given is a good indication of the current situation. Mr Wilkinson argued that only 40% of radionuclides are monitored and if the other 60% were factored in, the dose figure would be higher.

6. MATTERS ARISING FROM MINUTES AND ACTION TRACKER

6a. Minutes of the last main meeting held on 9 June 2016:

3284 The minutes for the SSG Meeting held on 9 June 2016 were agreed as an accurate record subject to the following amendments:

- Para 3140: correct the penultimate sentence: '*... and asserting that the cause of the Fukushima disaster was man-made*' to read: '*... quoted the report on the Japanese parliament on this disaster, stated that the cause of the Fukushima disaster was man-made*'
- Para 3186: correct *Tom Griffiths-Jones* to *Tom Griffith-Jones*

6b. Other matters arising from minutes and action tracker or correspondence received

3285 Chair pointed out that a lot of the matters on the action tracker have been dealt with during the reports and discussions today. Chair had made a note to look at the OSART recommendations and suggestions at the next sub-group meeting. Chair also advised that the PHE have changed their structure and Norfolk and Suffolk are covered by a single East of England division. Mr David Irwin is the new geographic lead for Norfolk and Suffolk and it is hoped that he will take forward the outstanding questions and actions on the tracker.

3286 Chair said the action tracker would be looked at during the next sub-group meeting to fine tune it and focus on any outstanding issues.

7. CHAIR'S REPORT

3287 It has been a quiet time over the summer period, but Chair did attend the Emergency Planning Consultative Committee Meeting. The official minutes have yet to be published but the committee discussed the joint emergency exercises that have taken place, looked at the schedule going forward, heard about the changes to PHE and looked at workshops in the future when the OSART report has been published. There will also be another mailing at Christmas with a calendar and Chair has asked for the group to be given a chance to contribute to that mailing.

3288 Chair advised that she couldn't attend the Meeting of Chairs but was available via teleconference. Chair will be attending the meeting in November in Manchester.

3289 Chair would like to add 'reports from organisations of members' as a further item onto the agenda in future as sometimes members of District County Councils, County Councils,

Friends of Earth etc may have relevant pieces of information that is linked to matters being discussed.

8. ANY OTHER BUSINESS

3290 Chair sought any other business issues but none were forthcoming.

NEXT MEETING:

Thursday 8 December 2016, Aldeburgh Community Centre at 10:00am

Meeting closed at 13:25