

Engagement meeting	Environment Agency Sizewell Stakeholder Engagement Meeting
<p>Attendees</p> <p>Chair of meeting Paul Quinton – Environment Agency</p>	<p>Representatives from local groups, councils and individuals</p> <ul style="list-style-type: none"> • Councillor Tom Daly - East Suffolk Council • Dr Chris Eaglen • Alison Downes - Stop Sizewell C • Richard Outram - Secretary, UK/Ireland Nuclear Free Local Authorities • Mike Taylor - Together Against Sizewell C • Chris Wilson - Together Against Sizewell C • Bill Parker - Minsmere Levels Stakeholder Group • Paul Collins – Co Secretary, Minsmere Levels Stakeholder Group • Bethany Rance – East Suffolk Council • John Rea Price – Minsmere Levels Stakeholder Group • Gill Clare • Naomi Goold – East Suffolk Council • Jennifer Kirtley – Together Against Sizewell C • Ian Galloway • Councillor Nicky Corbett, Vice Chair - Leiston-cum-Sizewell Town Council • Councillor Traci Weaver - Kelsale-cum-Carlton Parish Council • Marianne Fellowes MBE – Sizewell Site Stakeholder Group • Jacqui Miller - RSPB • Helen Morris <p>Environment Agency</p> <ul style="list-style-type: none"> • Paul Quinton (PQ) – East Anglia Business Manager • Stephen Taylor (ST) – Nuclear New Build Team Leader • Calum Dow (CD) – Engagement Specialist • Simon Engler (SE) – Senior Environment Officer • Chris Strachan (CS) – Biodiversity and Fisheries Specialist • Darren Rumsey (DR) – Flood Risk Activity Permitting (FRAP) Specialist • Ben Selby (BS)– Technical Support Officer • Alan McGoff (AM)– Nuclear New Build Policy Lead – Environment and Business • Dr Robert MacGregor (RM) – Senior Nuclear Specialist – Sizewell C Site Regulator • Caroline Richards (CR) – Senior Stakeholder Engagement and Communications Advisor • Andrea Hole (AH) – Engagement Support Officer • Sharon Goulbourne (SG) – Technical Support Officer • Karen Edwards (KE) – Senior Marine Specialist • Andrea Basten (AB) – Senior Habitats Regulations Specialist • Declan Roscoe (DRo)– Programme Support Office Delivery Lead • Liz Sargent (observer) - Nuclear Specialist
Location	Virtual meeting via MS Teams
Date / Time	Tuesday 7 th November 2023 15:30-17:00

- **Welcome from the Meeting Chair & Introductions**
PQ welcomed attendees from the Environment Agency (EA) and also representatives from local councils, NGOs and other individuals/members of the public.
- **About the “Meet the regulator” meetings**
PQ explained to attendees the background and purpose of the meetings. Please refer to slide 8.
- **Updates from the Nuclear Regulators for the Sizewell Sites**
PQ introduced RM who gave an update from a nuclear regulation perspective.
- **Nuclear regulation at Sizewell A**
RM gave an update on Sizewell A. Please refer to slide 10.
- **Nuclear Regulation at Sizewell B**
RM gave an update on Sizewell B. Please refer to slide 11.
- **Nuclear Regulation at Sizewell C**
RM gave an update on Sizewell C. Please refer to slide 12.
- **Radioactivity in food and the Environment**
RM gave an update on the annual Radioactivity in food and the Environment report. Please refer to slide 13.

Here is the link to the RIFE reports:

<https://www.gov.uk/government/publications/radioactivity-in-food-and-the-environment-rife-reports>

- **Update on Sizewell C Project**
ST gave an update on the Sizewell C project. Please refer to slide 14.
ST noted that Simon Barlow, Sizewell Project Manager for the Environment Agency sent his apologies for the meeting as he is dealing with a personal matter.
- **Sizewell C – Area NNB Project Team**
ST introduced colleagues from the Sizewell C project team. Please refer to slide 15.
- **Sizewell C – Construction Permitting**
ST provided an overview on construction permitting. Please refer to slide 16.
- **Keeping you informed and engaged**
ST highlighted a number of websites to give updates on the Sizewell C project. Please refer to slide 17.
- **Sizewell C – Flood Risk Activity Permits**
ST gave an update on flood risk activity permits. Please refer to slide 18.
- **New nuclear – national update**
AM provided a national update. Please refer to slide 19.

Questions received in advance

1. Question from member of the public

I would like to know if it is true that when Sizewell A was given permission that B and C were also given permission?

Answer: In terms of permitting from a radioactive substances point of view, that's not the case. Each site would have received its authorisation or what are now called permits at different times, so they wouldn't

have been authorised at the same time. There were no plans for a Sizewell B or C in the 1950s when the plans for Sizewell A were probably first mooted. So no, that is not the case.

2. Question from member of the public

I would like to know how seals and fish can escape being boiled alive in the hot water from this thing.

Answer: There's certainly no risk to seals and larger fish being boiled alive. The discharge plume is going to be about 10 degrees warmer than at the intake, and because it's in deep water and will be a buoyant plume we expect it to mix quickly. The area of the 10-degree increase is fairly small.

Our permits look at a plume of two- or three-degrees above background. At this temperature increase, any seals or fish would be able to avoid the plume if they chose to.

For the HRA, we looked at the overlap between that plume and bird foraging to make sure that the birds would still have enough area to forage and if fish chose to avoid that plume. For any fish or other organisms being entrained or entrapped into the cooling water system that is too big to go through 10-millimetre screens (which is the current plan) will go through the fish recovery return system and be discharged close to inshore, so will never reach the heated water at all. Unfortunately, very small things that can fit through those 10-millimetre screens will go through the condensers and be subject to the high heat. That's not part of our permitting process and not something we can control but should have been considered as part of the DCO. Cefas created an Entrainment Mimic Unit (EMU) that looked at the survival several species that are expected to go through the condensers and be subject to the heat. The mortality of these wasn't 100%, so some things will survive.

3. Question from Minsmere Levels Stakeholder Group

The CPMMP Discharge of Requirements 12 (East Suffolk District Council) AND 14 (Marine Management Organization) were submitted before a final proposed design for the hard and Soft Coastal Defences (DoR19) have been submitted. As a statutory consultee on these, what is your current position and opinion of the fact that the CPMMP has been proposed without an HCDF/SCDF design being available?

Answer: Requirement 19 has been submitted to the East Suffolk Council on 23rd of October. We are awaiting formal consultation. We are looking at all three - 12, 14 and 19 in totality and will have been consulted and will respond to East Suffolk Council in due course.

Update 29/11/23 We have now been consulted on all three requirements and have responded to confirm we have no objections to the discharge of these requirements. As decision maker, East Suffolk Council will consider all consultation responses in deciding whether to discharge these requirements.

4. Question from member of the public

Where and how the current activities at the proposed Sizewell C site site(s) are sourcing any water requirements they may have (potable or otherwise)?

Answer: The current activities on site are vegetation clearance, archaeological surveying, tree clearance and licenced water vole displacement, none of which actually require any water for construction.

I don't know where the potable water for the staff and the contractors on site is coming from, although such relatively small volumes currently will likely be from mains supply. All I can say is that the source is not licenced by the Environment Agency. There are no current abstractions for potable water. There are a couple of licences that the company now hold within the main development site or within the DCO boundary that have been varied to include some construction activities, but none of those are being carried out at the moment. Dust suppression and wheel washing will be the only water required at this stage and will come from these licences if required.

5. Question from member of the public

If the 'soiling mix' and 'ground anchor' test/works require(d) potable water, where that (and any non potable water) was/is planned to be sourced from, how it was/will be transported to the site(s) and the number and type of traffic movement necessitated.

Answer: The deep soil mixing trials and the ground anchor trials do not require potable water but may require non-potable water. We are not aware of the company's plans to source any required water for these trials. With regards to the rest of the question, we have no control over vehicle movements or the source of any water that is required if this is from the mains supply. There are water abstraction licences on site with strict conditions and purposes of what they can only be used for. These trial works are not one of them. There are no environmental permits required for the deep soil mixing or the ground anchor tests so it's outside of our control.

6. Question from member of the public

How any water, liquid waste, effluents and other contaminants were/are treated on site(s) and/or the arrangements for their transport to 'another place' for treatment and/or disposal, and the number and type of traffic movements arising from this element of what I believe to be 'early works'.

Answer: We understand that the only waste products from this will be soil. However, they are not being classed as waste because they are categorised as non wastes under the DoWCoP (Definition of Waste Code of Practice). They are destined for reuse within the site. Therefore, they're not intended to be discarded and are not waste, so that's being controlled under a DoWCoP 'declaration'. That sits outside the Agency. There's no permitted waste treatment or disposal happening on the site. Again, with the traffic movements that it is outside our remit. I suggest local authority or the DCO would be the best place to get answers regarding vehicle movements.

7. Question from member of the public

Whether there have been any notifiable events in the proposed Sizewell C site(s) since the commencement of 'work' and/or neighbouring/nearby land where it has been directly or indirectly impacted.

Answer: No - there have been no notifiable events under the permits. We have requirements in the permits in terms of notifiable events and I am certainly not aware of any such notifications.

8. Question from member of the public

If there have indeed been notifiable events; what was their nature, how many were there, what remedial work has been undertaken to deal with any detrimental impacts arising whatsoever, what changes have been made to operating practices to eliminate any future consequence(s)

Answer: There haven't been any.

9. Question from member of the public

Were any sanctions and/or fines or other types of enforcement activity required? If so, what were they?

Answer: There have been no notifiable events, so there have not been any sanctions or fines etc.

10. Question from member of the public

Have the recent storms impacts had any unplanned or detrimental impacts on the proposed Sizewell C sites(s)?

Answer: With regard to recent storms Babet and Ciarán, this has slowed progress on the Benhall Meadow and wet woodland compensatory habitat sites where these works are taking place in a floodplain of the river Fromus and therefore there was always a risk of flooding. We are aware of some slight flooding on the main site due to the heavy rainfall.

Once the site becomes licenced, the ONR will be the primary regulator for flooding on the Sizewell C site. The expectation would be that they would take account of the previous history of the site and what impacts there have been in terms of flooding, but it would be primarily an ONR matter.

11. Question from member of the public

Has the severity of the recent storm given cause for any appropriate authorities to reflect on potential steps that maybe required on the proposed Sizewell C sites, should such storms become regular occurrences, during construction, operation and decommissioning.

See answer to question 10.

12. Question from member of the public

Can you give us an update on the status and source of the proposed tankered water for use in the early years before the temporary desalination plant is operational?

Answer: There is a planning application from the company in with the Suffolk Council regarding a tanker filling station that's currently being considered by the local authority. The status and the source of the tankering is outside of our control. If it's not coming out of a licenced borehole and abstraction that we regulate then that'll be between Essex and Suffolk Water and the company or Anglian Water and the company, depending on where they source water that they found.

13. Question from member of the public

In the draft WRMP24 there appears to be a possibility that the SZC temporary desalination plant could also feedback to the Saxmundham water tower. Is this your understanding and do you have a regulatory view on this proposal?

Answer: This is covered in condition 46 desalination plan for the Deemed Marine Licence, which requires full details including design, size and location of the proposed temporary desalination plant to be submitted and approved in writing by the Marine Management Organisation. When submitting this, the Environment Agency will be consulted on the detailed proposals and will provide planning advice and highlight any environmental or permitting issues. We understand that this is a number of years away. We are not aware locally of this proposal to feedback to the Saxmundham Water Tower, however the Environment Agency were consultees for Essex & Suffolk Water's draft WRMP24. This is currently under review with Defra and has not been published yet.

14. Question from representative of Sizewell Site Stakeholder Group

I would like to ask a question regarding the recent flooding and the implication for the site and for emergency plan as several local roads were not passable.

Answer: The project has an approved a drainage strategy submitted during the DCO process. Version two of that was issued in April 2022, so 18 months ago.

In terms of the flooding of the site, the ONR will be the relevant regulatory body if it becomes a nuclear licenced site in early 2024 as expected.

With regards the potential for environmental impacts from activities on site, the Environment Agency has recently instigated a new work stream. We've already mentioned this about on-site environmental

management. We'll be present on site, liaising directly with the company and their contractors. We will be providing advice, guidance and checking compliance.

Flooding of local roads would be a matter for the local authority and or highways department and would also be considered by the ONR as part of the site's REPPIR arrangements, which is the Radiation Emergency Preparedness and Public Information Regulations 2019. ONR have a key role in ensuring these regulations are complied with any deficiencies being addressed and I'd also just point out that any kind of incident, a standard practise is to review, learn lessons and then instigate any improvements or efficiencies or opportunities that have been highlighted. It's pretty much standard construction practice.

15. Question from member of the public

Following Baroness Young's comments on Radio 4's 'Today' programme yesterday (31st October 2023), I now feel it essential that time is made within the meeting to examine the Regulator's view of her comments. As you know Baroness Young was the Chief Executive of the Environment Agency (2000 – May 2008) and therefore a person whose comments I believe should be taken very seriously.

The potential issues her comments raise for both Sizewell B and perhaps more urgently, any Regulatory approvals being sought for Sizewell C (and the 'safeguards' proposed therein) appear very relevant at this time.

I am sure that you will have been advised of her comments (and the potential implications within in them for any 'nuclear on the coast'), but just in case I would refer you to:

- BBC Sounds - Today programme - Time mark starting 2:33:08

Answer: Sizewell is likely to become be a nuclear licensed site and flooding of the site is primarily regulated by the ONR through their assessment of the Operator's safety case, which is also required to undergo a periodic and a systematic review. We've worked with the ONR and have published joint guidance on this area in the last year.

The Environment Agency takes a more strategic overview of flooding but for the nuclear licenced sites i.e. the B site, the A site and the C site, it is ONR who are the primarily regulator of flooding. So, it's the ONR's responsibility.

Questions on the day

Questions received during the meeting (including Teams chat)

From	Questions/comments	Answer
Dr Chris Eaglen	<i>What is the variation to the licence for Sizewell please</i>	The Environment Agency issues permits, which mainly relate to waste issues. The Office for Nuclear Regulation issues nuclear site licences. ONR regulates nuclear and industrial safety, external hazards such as flooding and security.
Marianne Fellowes SSG	<i>RE: SZB What was the cause of the Residual Oxygen breach and what lessons learnt please?</i>	The information I have is "Total Residual Oxygen (TRO) is a limit included on EDF's Water Discharge Activity permit for the cooling water discharge from Sizewell B. It relates to chlorination or disinfection of the water, to avoid biofouling of the system. At the start of outage RO18, on shutdown of main cooling water pump, electro-chlorination dosing of water continued. During routine main cooling water sampling the TRO concentration recorded was in the region of 1ppm, above the permitted limit of 0.3ppm. The electro-chlorination plant was shut

		<p>down and TRO concentration subsequently reduced to below the specified limit. The actual impact on the environment was considered minimal given the level of dispersion in the outfall to the sea and the event was of a transient nature only. EDF promptly notified us of the event and exceedance. For context, the TRO concentration recorded would be within tap water guidelines for England and Wales. Following notification of the breach of TRO limit, we issued CAR I/0749384, along with a CCS3 non-compliance score. In respect of the non-compliance, we issued EDF with a warning, but do not intend to take further enforcement action."</p> <p>EDF identified two corrective actions from the event, a human-factors and an engineered solution. The human factors solution, to update procedures and review practices, has been implemented. The engineered solution, to install an automatic protection system, is currently scheduled for installation in early-24. The learning from the event has also been shared with the wider nuclear community (I.e. other EDF sites, HPC, World Association of Nuclear Operators (WANO), etc).</p>
Christopher Wilson TASC	<i>Can the EA explain the number and nature of permits that SZC Co need to obtain to operate their desalination plant for the construction phase and advise the current status of applications for these permits</i>	The operational permits required will depend on the nature of the desalination process plant that SZC choose but are likely to include a Water Discharge Activity permit for the brine effluent marine discharge and a Combustion Activity permit for any generator emissions to air. We have not been approached by the company regarding operational desalination plant permit/s to date.
Paul Collins MLSG	<i>What company arrangements are being reviewed?</i>	The company management arrangements are being developed as the range of tasks the company undertakes increases, so it's a continual development. As the project develops it will need wider arrangements linked to clearing and construction at the site, and later on commissioning. What we do as part of our regulation is look at the core arrangements and test these for compliance with our requirements in the permit, while also monitoring and assessing the development of new ones to ensure they are suitable for permit compliance.
Councillor Traci Weaver	<i>Can he summarise rather than just put in minutes?</i>	See the response provided above regarding the TRO breach at Sizewell B.
Councillor Tom Daly (spoken)	<i>No radioactive discharge is expected until mid 2030s. As we know Sizewell B is now looking to extend its operating life to 2050 and beyond possibly. So at that point then the permits for radioactive discharges from B&C. I presume you are looking at the cumulative effects of both of those discharging at the same time. How does that work exactly?</i>	Yes, we did. When we issued the permit back in April 2023 we provided 2 things, a Decision Document and also an Independent Public Dose Assessment. In these we looked at potential cumulative dose impact from all three Sizewell nuclear sites I.e. A, B and C going into the future (SZC also provided such an assessment as part of their application). As part of our assessment, we must ensure doses from the sites individually and cumulatively do not exceed legislative dose limits. Our Decision Document provides a summary of our independent assessment, while our Independent Public Dose Assessment report provides the details of this, both are available online at Sizewell C: environmental permits for a new nuclear power station - GOV.UK (www.gov.uk) .

Councillor Tom Daly (spoken)	<i>So we can expect the discharges to double, at least I suppose. Is that right?</i>	There's a difference between the limits and what the plants will necessarily discharge. The limits will be one thing, but usually the discharges from the sites are at a lower level, so not necessarily.
Mike Taylor TASC	<i>Is the latest RIFE report in the usual format?</i>	HTML on gov.uk , pdf on Scottish Environment protection website Reports Scottish Environment Protection Agency (SEPA)
Marianne Fellowes SSG	<i>SZB 12-month cumulative gaseous discharges of carbon-14 remained less than 64% of the annual limit, with other gaseous discharges less than 17% of respective annual limits. Liquid discharges were in-line with expected levels and remain less than 39% of the annual limit for tritium, and less than 10% for caesium-137 and other radionuclides. Will EA push to reduce the limits in response to this data please?</i>	In terms of what we have to do, it's a balance because we expect the operators such as Sizewell to use their best endeavours (i.e. Best Available Techniques) to minimise their discharges and therefore the resultant radiological doses. So, we do that through the permit condition that requires Best Available Techniques (BAT) to be used, which means we expect them to apply that to minimise the discharges as far as practicable taking into consideration a range of factors (e.g. safety, worker doses, costs, etc). So, for instance, we've already mentioned that Sizewell B are looking at zinc injection for the primary circuit, so we expect them to undertake a BAT assessment to ensure that the improvements to worker radiation doses do not lead to new environmental impacts. So, it's beholden on the permit owner to minimise discharges and that's what we enforce through our regulation at the site. Minimisation of wastes is a fundamental part of the permit.
Mike Taylor TASC	<i>Does the EA have experience of desalination plant in the vicinity of nuclear power stations?</i>	There are desalination plants around the country, some successful, some less so as I understand. So, there is experience, but I think it is limited. We have had no applications for permits regarding the desalination plant. This will involve a number of permits. There will be permits required to construct it and there are additional permits to operate as well. There will be some dewatering when they are actually sinking the shaft. There will be some horizontal directional drilling that will generate 'mud' wastes, the bentonite clay that they use for the horizontal directional drilling for the intake and output shafts. There will be air emissions associated with the running of the plant, although I don't believe the design is finalised to that extent yet. And of course there will be the discharge of the saline solution.
Jenny Kirtley TASC	<i>How long before you get an environment officer as it seems a huge area of the site has already been cleared.</i>	The post is being advertised at the moment. I should be clear that the fact we haven't yet got an Environment Officer does not mean that we haven't been on site. The EA does not regulate vegetation clearance, unless within 8m of a main river.
Councillor Tom Daly (spoken)	<i>Perhaps this is one for Chris Strachan, the desalination plant. Will there be permits there regarding sort of fish kill? What would be that look the biosphere effect of the desalination plant because I know there's reports that there's going to be enormous fish kills associated with Sizewell. I don't know what your approach to</i>	The marine team does have experience with other desalination plants, but they are not near a nuclear power plant. I'm not sure quite what the nuclear aspect would add but we don't anticipate a fish kill from impingement of fish the same way as the cooling water from the operation of the power station. This is because the abstraction will be much less, and we expect they will be able to screen out fish and other large organisms at the intake head and not need to create a new fish recovery return system. What we will assess is the super saline discharge and any chemicals that are in that discharge

	<i>that is but will the desalination plant add to this?</i>	and what impact this might have in the environment. But from pure abstraction and impingement such as we expect for the main cooling water system, we don't think there'll be anything of that nature for the desalination plant.
Councillor Tom Daly (spoken)	<i>Thank you. And for Sizewell we'll see itself. I know that Hinkley Point there was the acoustic fish deterrent wasn't there originally which was then turned on and that's going to be there anymore. Have you been pushing for similar here for fish deterrence to reduce the fish kill.</i>	The EA doesn't regulate the abstraction. We regulate the discharge. For both Hinkley and Sizewell we've added the discharge of dead biota as a polluting matter to the operational water discharge activity (WDA) permit. For Hinkley, EDF have agreed that the abstraction impingement of the fish will go in the DCO. I believe it was considered and discussed in the DCO for Sizewell but I wasn't involved in that point.
Councillor Tom Daly (spoken)	<i>Ok thanks, So who takes the environmental lead on abstraction?</i>	That's part of the DCO. Under the water resources legislation, the Environment Agency only looks at abstractions from fresh water from rivers or water from estuaries or groundwater rather than the open sea as here but really is as fresh water as a resource as opposed to salt water. Also worth mentioning that the requirement for an AFD for Hinkley has not been removed; it's still very much part of the DCO requirements and until EDF try and change that, which we might expect sometime later this year or early next year, that requirement still stands. It's also part of the marine licence at Hinkley (Hinkley has a separate marine licence. It wasn't a deemed marine license as at SZC). Assuming that the conditions for the AFD are removed from the DCO, they will have to have it removed from the marine licence as well.
Councillor Tom Daly (spoken)	<i>So your assessment of the biota discharge then does that give an indication of the sort of fish kill? I suppose it would?</i>	Yes, but only from a water quality perspective not an impact in say fish populations which is what we're expecting the DCO to look at.
Councillor Tom Daly (spoken)	<i>Who in the DCO would take that up if not yourselves? I wonder.</i>	The decision maker and owner of the DCO process is the Secretary of State for the Department for Energy Security and Net Zero. The SoS is advised by the Planning Inspectorate, PINs, who provide recommendations.
Councillor Tom Daly (spoken)	<i>Yes, I understand that but everything in the DCO is being regulated, isn't it? We at East Suffolk Council have got a role. You've got an environmental role so if you're not picking up the abstraction environmental role and you've got no idea who is within the DCO</i>	We in the Environment Agency regulate what is within our <i>vires</i> (powers) – we don't have the <i>vires</i> to regulate the abstraction except for the consequential impact of discharges and use of best available techniques. This is because we do regulate the discharge as has been explained. The impact on fish populations of the abstraction itself is for the Planning Inspectorate to consider in the DCO process and provide their recommendations to the SoS who is the decision maker We considered the discharge and the impact of the dead and decaying biota on the local environment in the water discharge activity permit.
Marianne Fellowes SSG	<i>How much do you expect the extraction to be? To build and then to run? When SZB was being built the water use was almost 3x times during construction - 1995</i>	We have not yet been involved in any technical discussions regarding the temporary desalination plant. The only information I have is from very late in the DCO process which indicated a volume of up to 2,600 m3 per day increasing to 4,000 m3 per day in year 4 if needed.

	<i>(earliest I could get) = 700 m3 x 1000. Running down to 200.</i>	This is in 6.18 Fourth Environmental Statement Addendum - Non-Technical Summary
Nicky Corbett	<i>I understand the acoustic fish deterrent is back on at HPC?</i>	<p>The AFD requirement in the HPC DCO has not been changed since it was issued. However, the AFD requirement has been removed from HPC Water Discharge Activity permit through a recent permit variation.</p> <p>The original HPC WDA permit application (submitted in 2011) included three mitigation measures in the design of the cooling water system: an Acoustic Fish Deterrent, Low Velocity Side Intakes and a Fish Recovery and Return system. The original HPC permit, issued in 2013, allowed the cooling water system to operate as described in the original application. The conditions required the applicant to submit reports to the Environment Agency describing how their proposed AFD will operate and demonstrate that it will be optimised to minimise impacts on fish. These conditions were requested for removal as part of the variation application.</p> <p>The cooling system is considered by three regulators with different regulatory powers – Environment Agency in relation to the water discharge activity permit, Secretary of State for Energy Security and Net Zero (formerly Business, Energy and Industrial Strategy) in relation to the Development Consent Order and Marine Management Organisation in relation to the marine licence.</p> <p>There was a duplication of a similar requirement in the Development Consent Order (DCO) regarding AFD optimisation, which has led to a potential overlap of regulation across the planning and permitting regimes, with the same requirements in all 3 permissions originally granted for the station. We concluded that the most appropriate way to regulate the cooling water intake is through the Development Consent Order. This decision was made in consultation with Natural England and the Marine Management Organisation, who agree with this approach.</p> <p>The Environment Agency's powers in relation to water discharge activities (WDA) under the Environmental Permitting Regulations 2016 allow us to consider the cooling water system, as it relates to the potential for pollution of waters via the discharges. We consider that dead or damaged fish are potential polluting matter, so we assessed the permit variation for the proposed removal of the AFD on that basis.</p>
Marianne Fellowes SSG	<i>What changes are needed to the HPC layout to fit into the SZC smaller site? Thanks.</i>	Unfortunately, we don't have specific information on this.
Paul Collins MLSG	<i>When you say ONR take responsibility for flooding on site following grant of the Nuclear Site</i>	The ONR will regulate flood issues on the main construction site and the temporary construction site. You

	<i>License, is that just the platform or the whole platform plus construction site?</i>	can read more in ONR's guidance on Licensing: Licensing nuclear installations (onr.org.uk)
Dr Chris Eaglen (spoken)	<i>So my concern is that we're watching in Ukraine Russia's intimidation of nuclear plants. We're watching them every day. And as you know, Russia has been actively developing these very high powerful torpedo units. We don't want another Fukushima, and it may be worth us looking at what really is. Stimulated flooding. It was looked at Hinkley and really was not accepted at that time because we were looking at natural earthquakes. But I do feel now. That with this aggression from Russia, which seems deep seated, that we take a look specifically at those risks that we're exposed to with these coastal nuclear on low level sites, that's just my point.</i>	In terms of looking at this area, it is the Office of Nuclear Regulation responsibility because they ensure that the Operator has assessed the potential for external hazards, be they natural (flooding) or from other sources (i.e. actions of a rogue State).
Dr Chris Eaglen	<i>Hopefully the impact of the Russian use of their interest in initiating disruptive surge events is taken into account. A different world exists now.</i>	See answer above.
Chris Wilson TASC (spoken)	<i>Having witnessed the great lowering of the beach in front of the Sizewell B and Sizewell C sites a loss of mass of shingle are the EA particularly concerned about this and do the EA think there's any implications in terms of the flood risk for the site and the assessment of the South Coastal defence feature that has recently been submitted to the Council.</i>	We've already provided a response about the proposals in our response to Question 3 above. We are currently waiting to be consulted on the proposals. In terms of implications for the site, that is mainly a matter for the ONR regulation, as set out in earlier responses.
Bill Parker	<i>This meeting is flagged as meet the regulator. In view of the number of responses highlighting that the ONR would be the regulator / have responsibility it would be helpful if they attended future meetings to ensure more complete answers.</i>	ONR now have their own engagement meetings on Sizewell C. This information on the ONR website explains the roles of the regulators in relation to Climate Change and flood coastal risk management About ONR - Climate change: Working with the UK's environment agencies

	Many of the answers today have been unsatisfactory.	See pages 11-15.
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Question received in writing from Together Against Sizewell C

Question/comments	Answer
<p>1. Having personally witnessed the rapid erosion of the coast in front of the SZB and SZC sites over the last 18 months and the loss of over a metre in some places (including at the northern end of the SZC site by the tank traps) over the last week, I would like the EA to answer the following:-</p> <p>a) How much erosion has there been in front of the SZC site over the last 24 months?</p> <p>b) Can the EA explain why the rate of erosion at Sizewell has increased so rapidly?</p> <p>c) At the current rate of erosion, by which date do the EA anticipate that the sea will breach the shoreline and reach the area of SZC's SSSI Crossing?</p> <p>d) Is the EA confident that the SZC site is not at risk of flooding by the sea inundating the site and 7.3 metre nuclear platform from the rear during the full lifetime of the site?</p> <p>e) The erosion around the tank traps between RSPB Minsmere and the SZC site has increased significantly and is a prime example of what happens when the sea meets a solid object adjacent to softer materials. Obviously, the scale of SZC's hard sea defences, if built, will have a far greater impact on neighbouring properties. Can the EA give their assurance that SZC's sea defences will not have a detrimental effect on adjacent properties over the full lifetime of the site?</p>	<p>a) EA collects beach monitoring data at sites north and south of tank traps. Most recent Suffolk Coastal Trends report was 2021. EA will request updates for this area to 2023/24.</p> <p>b) Suffolk coast is dynamic and there are numerous factors that influence local erosion and accretion patterns.</p> <p>c) The SMP (Shoreline Management Plan) policies and text set out predictions for the coast up to 2105.</p> <p>d) This is a question for ONR who lead on regulation of flood risks to nuclear sites.</p> <p>e) The proposed SCDF is a soft coastal feature that will supplement the sediment budget in the area.</p>
<p>2. SZC Co have recently submitted an application to East Suffolk Council (ESC) for discharge of SZC DCO Requirement 19 (ESC ref DC/23/4124/DRR Discharge of Requirement 19) i.e. they have submitted what is supposed to be the final design of the sea defences. We would like the EA to answer the following: -</p> <p>a) TASC note that the documents show a design life of the sea defences till 2120. DCO approval was given on the sea defences having a design life till 2140. Do the EA consider that this should be treated as a material change to the DCO?</p> <p>b) 2120 is only 85 years after an assumed operational start date of 2035 (but we all know, based on the experience of EPR construction projects to date, it is likely to be much later). Is the EA content that the design life of the sea defences is only up to 2120 given the operational start date is likely to be later than 2035 and given that spent fuel is expected to be on site for at least 120 years after operations commence.</p>	<p>a) The Environment Agency is not the arbiter of whether something should be treated as a material change to the DCO.</p> <p>b) The adequacy of sea defences for the site will be regularly reviewed by the Operator as part of its safety case which is regulated by ONR through a nuclear site licence. If projections change and/or the defences are projected to be inadequate, then these would need to be addressed. We will continue to work with ONR in this area, sharing our expertise.</p> <p>c) We have not seen a revised fuel strategy. We are expecting to be provided with an update of SZC's Integrated Waste Strategy, which should include any changes to the spent fuel strategy. However, storage of radioactive waste (including nuclear fuel) on the site is primarily an area of ONR regulation.</p> <p>d) This is primarily a matter for ONR to provide an opinion on, as it relates to something under their regulatory vires.</p> <p>e) We refer to our response to a) above.</p>

<p>c) TASC note that the application refers to a revised spent fuel strategy. Has the EA seen the revised spent fuel strategy?</p> <p>d) As the full lifetime of the site is dependent on SZC's spent fuel strategy, do the EA agree that the lifespan of the sea defences cannot be approved until the revised spent fuel strategy is agreed?</p> <p>e) Do the EA consider that a revised spent fuel strategy will be a material change to the SZC DCO?</p>	
<p>3. Under another Discharge of Requirement, Requirement 2, ESC ref DC/23/4057/DRR Discharge of Requirement 2 (Code of Construction Practice - Site Wide Material Management Plan), TASC note that SZC Co have included the removal of the Bent Hills and Northern Mound in their phase 1 works and installation of the temporary Hard Coast Defence Feature in their Phase 2 works. TASC believe that the temporary Hard Coast Defence Feature needs to be in place before the removal of the Bent Hills and Northern Mound otherwise it risks compromising the SZB sea defences and places anyone working on or using the coastal strip at risk prior to installation of the Temporary Coastal Defence Feature. Can the EA explain their understanding of this situation? If the order of works is as TASC have set out above, we would like the EA to explain why they consider this will not risk compromising the Sizewell B sea defences.</p>	<p>EA will take advice from East Suffolk Council senior engineer and support where necessary.</p>
<p>4. In light of the extreme loss of shingle from the beach in front of the Sizewell C site in recent months,</p> <p>a) How often do the EA anticipate that SZC C's Soft Coastal Defence Feature (SCDF) will need replenishing if SZC is built?</p> <p>b) Do the EA consider that the SCDF will cope with multiple storms?</p> <p>c) Where will the shingle needed to replenish the SCDF be sourced and is that source considered sustainable for the full lifetime of the plant?</p>	<p>a) EDF have reported on their anticipated frequency of recharge requirements.</p> <p>b) Multiple consecutive events and impact on SCDF were modelled</p> <p>c) Developer to explore options with MMO from available licenced dredge sites</p>
<p>5. Following the 'Meet the Regulator Meeting' on 15th May 2023, the EA kindly supplied written answers to questions submitted before the meeting including 17 questions that I raised (appendix iii) relating to the SZC Water Discharge Activity (WDA) permit. In answer to my question numbered 13, the final paragraph states "We have also done a simple average of the number of fish reported on each survey and this is 70,460 fish per day". Can the EA advise whether the figure of 70,460:-</p> <p>a) Represents only dead/moribund fish?</p> <p>b) Is the actual figure from the SZB surveys or one that has been adjusted to take into account the greater volumes of water/fish at the SZC intakes?</p>	<p>a) The is all fish that would go through the FRR system so includes those that will survive the system and be returned to Sizewell Bay living as well as those that are not expected to survive.</p> <p>b) This has been scaled for SZC.</p>
<p>6. Can the EA explain why the SZC WDA permit biomass limit of 5,600kg per day from the Fish return and Recovery systems with a 78% mortality, is so much greater than the limit of 502kg/day for biomass</p>	<p>While we have used the same methodology to assess potential impacts of the FRR system discharges at HPC and SZC, the starting point for each assessment is based on site-specific impingement records from the</p>

<i>and 205kg/day dead/moribund biomass in the Hinkley Point C WDA permit?</i>	existing SZB and HPB power stations. For both stations we assessed a reasonable worst case of impingement and based our permit limits on that analysis.
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Sizewell C – Take home messages

PQ gave some final messages and thanked all for their participation and attendance. Please refer to slide 30.

END OF MEETING

Appendix

Questions received in the MS Teams Chat Function and during meeting (that were not answered in the chat function or during the meeting)

From	Questions/comment	Answer
Marianne Fellowes SSG	<i>What is the proposed site and how far can the proposed Desalination plant for construction and management of SZC be away from SZB considering it appears power for this will come from SZB?</i>	The location of the SZC desalination plant is yet not defined.
Paul Collins MLSG	<i>What is your opinion of the quality DoR 12 CPMMP and 19 HCDF/SCDF? Do you coordinate with MMO re their DoR 14 CPMMP?</i>	Yes, we do coordinate with MMO.
Paul Collins MLSG	<i>Is the MMO involved in the abstraction and its impact on fish populations?</i>	The Development Consent Order as made by the Secretary of State, includes a Deemed Marine Licence (DML). Condition 44 of the DML requires the applicant to submit a Fish Impingement and Entrainment Monitoring Plan (FIEMP) to the MMO for approval and will include a public consultation. The FIEMP will consider the necessary monitoring arrangements and potential mitigations required.
Chris Wilson TASC	<i>In an email exchange with the ONR in which concerns were expressed about the risk of the SZC nuclear platform being flooded during its full lifetime, from the rear/west-facing side of the site once the sea has breached the low-lying coastal defences north of the SZC site, the ONR stated that this was a ‘habitats matter’ that is the responsibility of the EA. Do the EA accept that they do have full regulatory responsibility for assessing the risk of the SZC platform flooding from such a situation?</i>	This is a question for ONR who lead on regulation of flood risks to nuclear sites.
Mike Taylor TASC	<i>In an ideal world should the environmental permits have formed part of the DCO process. How confident are EA that permits can be granted and how long to permit?</i>	The Environmental Permitting regime is separate but complementary to the DCO regime. Permitting is covered by the comprehensive legislation of the Environmental Permitting Regulations 2016 which allows the regulator to adequately recover the costs of decision making and compliance assessments for the lifetime of the permit. Often

		<p>the level of detail required for permitting an activity is different to that submitted as part of a DCO. When considering our response to a DCO application, the EA will give one of three positions to provide direction to the Examining Authority and applicant.</p> <ul style="list-style-type: none"> 16. No major permitting concerns 17. More detailed information is required 18. Don't proceed, unlikely to grant a permit <p>These are described in the guidance: Developments requiring planning permission and environmental permits - GOV.UK (www.gov.uk). It is important to note that these positions do not pre-determine the decision over any permit of licence application. An applicant for an environmental permit or licence must provide all the information necessary to make a decision. If this isn't provided then the decision can't be made, or is at best delayed until the information is submitted. It is for this reason that many complex permit and licence determinations take a long time. We are also required to give the public and stakeholders adequate time to review the application (and sometimes our draft decision) and provide any relevant information not considered or presented in those documents. In short, there are many factors that influence the time it takes to come to a robust permitting decision, so it is difficult to give an exact answer to the question.</p>
Mike Taylor TASC	<i>Have the EA made comment on the Essex and Suffolk water co. Water resources management plan 2024. A link would be helpful if so?</i>	The Environment Agency were consultees for Essex & Suffolk Water's draft WRMP24. This is currently under review with Defra and has not been published yet so unable to provide a link.
Marianne Fellowes SSG	<i>Will EA be commenting on DISCHARGE OF REQUIREMENT 23 MAIN DEVELOPMENT SITE: HIGHWAY WORKS (KING GEORGE'S AVENUE) IN RESPECT OF SZC Co. SIZEWELL C NUCLEAR POWER STATION. There are concerns regarding flooding and drainage.</i>	<p>The EA are not a named consultee within the DCO who Suffolk County Council (SCC) are required to consult in considering the application.</p> <p>SCC can consult the EA if they require any additional advice relating to flood risk matters.</p> <p>The Lead Local Flood Authority are responsible for advising on surface water drainage matters.</p>
Mike Taylor TASC	<i>Currently there is a question regarding the drawing 100414 scale and Ordnance survey grid lines. If this drawing is for approval it needs to be correct.</i>	Not sure what this is referring to?
Paul Collins MLSG	<i>But DoRs 12 and 14 were provided before the 19 was available. How can a CPMMP be proposed without a HCDF/SCDF Design being available? the fact that 19 has been provided afterwards shows significant questions about the quality of the CPMMP document.</i>	The planning authority, East Suffolk Council, are considering the points raised by respondents about the new information provided in the company's submission. We will support their conclusions once available.

Marianne Fellowes SSG	<i>There is a lot of soil being moved from Fen Meadow to site...40 vehicle loads a day - would this not need potable water. If this is out of EA control should ES Environmental Health be picking up?</i>	Vehicle drivers' potable water arrangements are not regulated by the EA.
Mike Taylor TASC	<i>Flooding of highways affecting Emergency planning routes has been reported to SSG affecting SZB emergency plan</i>	Thank you, this information is noted.
Nicky Corbett	<i>Dune damage at Sizewell during recent storms? Is there any?</i>	Monitoring and site inspections by ESC, EDF and EA will continue.
Mike Taylor TASC	<i>Q12 is subject to drought conditions on the source of water at Levington</i>	Thank you, this information is noted.
Councillor Traci Weaver	<i>Where is the tanker filling site?</i>	East Sussex Council are currently considering a Planning application for the Development of a temporary "Water Sourcing Facility" for Sizewell C. Link below Requirement discharge information and applications » East Suffolk Council
Mike Taylor TASC	<i>It is an inescapable fact that the sea defence for SZC would be far to the East of the previously agreed Layfield planning lines. ONR are aware</i>	Thank you, the information is noted.
Marianne Fellowes SSG	<i>There has been loss of cliff over the last weekend - when will you attend site please?</i>	EA and ESC technical staff visited site for inspection 7/12/2023. Modest loss of cliff near tank traps is noted. Beach levels were high and cliffing appears consistent with trends observed over recent decades.
Marianne Fellowes SSG	<i>Will you forward questions to ONR please? As part of your partnership working? Thanks</i>	ONR will receive a copy of the meeting notes and questions.

Appendix ii – information and links provided in the MS Teams Chat Function

The annual Radioactivity in Food and the Environment report has just been published in a new accessible format on GOV.UK. The HTML document and downloads can be found here [Radioactivity in food and the environment \(RIFE\) report - GOV.UK \(www.gov.uk\)](#)

The document is available as a pdf on the Scottish Environment Protection Agency website <https://www.sepa.org.uk/environment/radioactive-substances/environmental-monitoring-and-assessment/reports/>