



## Delegated Report

**Application no** DC/23/4124/DRR

**Location**

Sizewell C And Associated Development Sites

**Expiry date** 17 November 2023

**Application type** Discharge of Requirements

**Applicant** Niki Pieri

**Parish** Leiston Cum Sizewell

**Proposal** Discharge of Requirement 19 - Main Development Site (MDS) Marine Infrastructure of the Sizewell C Development Consent Order.

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**Consultees:**

Consultee	Date consulted	Date reply received
Natural England	27 October 2023	24 November 2023
<p><b>Summary of comments:</b> Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.</p> <p>Sourcing of Material for Soft Coastal Defence Feature replenishment - Natural England welcome the commitment to replenish the Soft Coastal Defence Feature (SCDF) with material which is of similar particle size to that being lost. We further note that the project should source replenishment material in such a way that does not impact on any designated geomorphological, vegetated shingle or dune features to the adjacent Minsmere to Walberswick Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) sites.</p> <p>Clearly material will not be taken from the designated site, but it should also should not be taken in such a way that natural tide and wave action are altered to the disadvantage of nearby designated site features. i.e. speeding up movement of material from the SSSI or creating a focal point for beach movement/erosion. Whilst we acknowledge that beach recharge events are inherently unpredictable, we advise that the project should commit to seeking agreement on appropriate sediment sourcing locations through the Marine Technical Forum before commencing any sediment replenishment work.</p> <p>Abutment of Soft Coastal Defence Features and Hard Coastal Defence Features onto Minsmere to Walberswick Heaths SAC and SSSI - We note from the proposal that there is an expectation that shingle vegetation will develop on the SCDF. We believe that this will be difficult to achieve, and this leads us to concerns on the impact the coastal defence features may have on the designated features of the Minsmere to Walberswick Heaths SAC and SSSI where the defence feature abuts on its northern extent. To our knowledge, it has not been possible to artificially sort shingle to re-create the conditions that result from natural sorting by wave action, which is what the specialist plants need to develop. Mechanical movement of the shingle alone will not create the suitable substrate grading required for specialist shingle species to proliferate. If the SCDF functions in accordance with the cited scenario from Pye and Blott (2018) some of the more disturbance tolerant shingle plants may develop but this would take a considerable amount of time and the 'clock' would reset every time there was a period of recharge.</p> <p>We further advise that vegetated shingle colonisation of the SCDF may depend on the profile of the sloped feature and that the project should seek to mimic the natural beach profile where vegetated shingle already occurs to ensure colonisation is possible. We also note that the measures propose reseeding of the SCDF using a natural seedbank to allow recolonisation of the feature. We have concerns that, where the SCDF abuts with the designated site, that care must be taken to ensure that no planted species inconsistent with the SAC and SSSI features are allowed to move onto the designated site. Further to this, if the SCDF becomes dominated by unsuitable species, will this be managed to prevent a negative impact on the designated site?</p> <p>We acknowledge that the points above relate to the ecological function associated with the coastal defence features and are not necessarily suitable for discharging via DCO requirement 19. We request that our concerns are addressed when the project seeks to discharge DCO requirement 4, The Terrestrial Ecology Monitoring and Mitigation Plan.</p> <p>Natural England are satisfied that any small amendments to the design (e.g. those associated with the Bulk Landing Facility) will be monitored as part of the Coastal Processes Monitoring and Mitigation Plan (CPMMP) and reviewed by the Marine Technical Forum periodically, thereby ensuring that the required level of Long Shore Transport (LST) is maintained across the site for the necessary period. Any changes that the review of Requirement 19 have generated for the CPMMP (Requirement 12) have not been assessed by Natural England. The advice presented in this response is provided in the context of the information available at the time of writing and Natural England have no further comment on the documents presented for the discharge of DCO Requirement 19.</p>		

Consultee	Date consulted	Date reply received
Environment Agency	27 October 2023	30 January 2024
<p><b>Summary of comments provided 30 November 2023:</b> Thank you for your consultation received 27 October 2023. We have reviewed the submitted Design and Access Statement, Illustrative Visuals, Coastal Defences Design Report and Drawings and are satisfied that Requirement 19 may be discharged.</p> <p><b>Summary of comments provided 30 January 2023:</b> Thank you for providing all of the relevant documents. We have reviewed the track changes and can confirm that we do not require further consultation on these matters.</p>		

Consultee	Date consulted	Date reply received
Marine Management Organisation	27 October 2023	30 November 2023
<p><b>Summary of comments provided 30 November 2023:</b> Thank you for submitting your comments to the Marine Management Organisation (“MMO”) regarding East Suffolk Councils (“ESC”) position on the Coastal Processes Monitoring and Mitigation Plan (“CPMMP”) and Main development site: Marine infrastructure, otherwise named Requirement 12 and Requirement 19 (respectively) from the Sizewell C Project Development Consent Order. The MMO appreciates sight of these comments prior to discussing them with the project directly and has no objection to the comments made. For your awareness, as discharging authority for the deemed marine licence (“DML”), the MMO is also in the process of reviewing the CPMMP in line with DML condition 14 and will look to align the discharge of this with the discharge of Requirement 12 by ESC.</p>		

Consultee	Date consulted	Date reply received
SCC Nationally Significant Infrastructure Projects	27 October 2023	20 November 2023
<p><b>Summary of comments:</b> Flood and Water Management - SCC as the LLFA has no comments at this time.</p> <p>Highways - SCC as the Local Highways Authority has no comments for this, it will be with SCC PRoW.</p> <p>Public Right of Way - SCC notes that the permanent alignment of the PRoW (E-363/021/0) is linked to the design of the hard coastal defence feature. The Access &amp; ROW Plans and Rights of Way Strategy (REP10-37) state that the precise alignment of the permanent footpath will accord with the layout and scale details of the hard coastal defence feature, and that a PROW implementation Plan is required before the new permanent alignment can be created (Requirement 10). The PRoW Implementation Plan will also apply to both the temporary and permanent alignments (ROW Strategy para 3.2.5 Pins EN010012). Therefore, SCC looks forward to working with SZC Ltd on the PRoW implementation Plan for both the temporary and permanent alignments and hopes that this will address concerns regarding: Surfacing of the temporary PRoW seaward of the temporary HCDF; Surfacing of the PRoW on its permanent alignment on the HCDF; Ensuring the interface between the PRoW and the BLF remains level for users (i.e., that the hardstanding doesn't create a step in the PRoW); The location and legally defined width of the PRoW for recording on the Definitive Map and Statement. As per Article 19, the public footpath cannot be temporarily closed until the alternative route is open for use and completed to the reasonable satisfaction of SCC; this will rely on the production and approval of the PRoW Implementation plan.</p> <p>SCC notes that all the drawings solely refer to the coast path, but they should also show the current and proposed alignment of the publicly maintainable highway along the beach-E-363/021/0 (FP21); this permanent alignment will become the new legal alignment of the PRoW to be recorded on the Definitive Map. The alignment for the King Charles III England Coast Path was approved by the Secretary of State in June 2022 and is currently being established on the ground by SCC. Reference to the PRoW in this response also includes the King Charles III England Coast Path.</p> <p>SCC would prefer to see the permanent PRoW located on the crest of the permanent sea defence as this would provide the future proofing against threats which might compromise the public highway and create a liability and expense for SCC. Storm Babet illustrates the dynamic nature of the beach with the beach level being reduced overnight and the current low dune/vegetated shingle strip reduced in width. Although this is</p>		

not the proposal, it is noted that the publicly accessible coastal margin will extend up to the SZC security fence allowing for an informal footpath along the crest, and therefore the design should ensure that there is safe and suitable access at the north and south end of the defence to connect to the PRoW and to avoid the creation of desire lines which might compromise the landscaping. It is unclear how this access will be accommodated at the north end of the defence.

SCDF and beach maintenance para 3.10.11 - SCC notes the commitment to recharge the SCDF to maintain a protective beach between the HCDF and the sea. The SCDF also protects the recreational corridor and the PRoW. As SZC has opposed all requests by SCC to locate the PRoW on the top of the sea defence, then it suggests that the trigger for any remedial work should also take account of the vulnerability of the PRoW and its users.

DRW 100414 – Permanent coastal defence feature - The detailed design will need to clarify how the newly aligned permanent PRoW will transition from the permanent HCDF at 5.2mOD onto the existing lower land; at the northern mound and from the roundhead onto the existing SZB foreshore in the south. Clarify why the recreational corridor (described as footpath) varies from between 4m – 9m; note that SCC will expect a legally defined public footpath including width (2m is the normal accepted width for a footpath diverted due to development). Clarify whether the varying depth of fill/landscaping will have any impact on the long term durability of the footpath.

DRW 100416 – Permanent coastal defence feature - adaptive design - This design places the recreational corridor/footpath further east creating additional vulnerability to the PRoW and the design should consider re-aligning the PRoW on the crest.

Temporary Hard Coast Defence Feature DRW 100419 & Para 4.2 - This will obstruct the existing PRoW and a temporary alternative route seaward of the sheet pile wall is proposed. SCC require clarification as to how the PRoW or temporary alternative access will be kept open/managed during the installation of the temporary sea defence, particularly as construction will be from the south and affecting PRoW outside of the order limits.

Section @ F-F Prior to Start of Construction - The position of the PRoW is incorrectly marked. The PRoW is adjacent to the existing fence (See extract from the Definitive Map below), not 45m to the east as shown on this drawing and therefore gives a false impression of the location of the design and should be corrected. (extract below) Section @F -F During construction of the initial sea defence and during construction of the MDS The alternative access area starts 36m and 25m respectively to the east of the current PRoW alignment on these two cross sections with the allocated footpath strip starting at approximately 45m to the east of current PRoW. The proposed design for the temporary alignment for the footpath will sit at the existing ground levels for 2022 which in the location of F to F appear to be between 2.88 and 3.38mOD (DRW 100415), unlike the proposed levels for the permanent alignment which will be raised to 5.2mOD. SCC also notes that scour protection is proposed at the toe of the temporary HCDF, presumably as protection from tidal action.

SCC is therefore concerned that the proposed design for the temporary alignment of the PRoW in front of the THCDF will place path users closer to the MHWS and as the ground levels are intended to remain as per 2022, will leave them vulnerable to high tide events, effectively squeezed between the sheet piling wall and the sea. SCC seeks clarification as to: 1. The measures that are being put in place to ensure the safety of users of the temporary footpath; and 2. What surfacing is proposed for the temporary footpath. Ground reinforcement grids could be an option to stabilise the shingle to create a useable width as used further south in front of SZB.

**Other comments received:**

Consultee	Date consulted	Date reply received
RSPB	N/A	24 November 2023

**Summary of comments:** The RSPB as owner of the Minsmere Nature Reserve is a potentially affected neighbour of the proposed development. We wish the following comments to be considered as part of the discharge of this requirement and for close attention to be given to these issues during the development of detailed design.

Interface with boundary with RSPB Minsmere and the Minsmere-Walberswick SPA/SAC/SSSI and Ramsar Site - We believe that the detail provide in the design report is insufficient to understand how the interface between the SZC development and RSPB Minsmere will be managed, avoiding impacts on land in the RSPB's ownership and the Minsmere-Walberswick SPA/SAC/SSSI and Ramsar Site. We are disappointed to see that the relationship with designated habitat (Minsmere – Walberswick SPA/SAC/SSSI/Ramsar site) and the Minsmere RSPB Reserve has not been identified explicitly as a constraint and interface that needs to be taken into consideration during design in section 3.4.5.

We do not believe these concerns are adequately addressed in item 3.7 due to the following issues:

Northern Mound and Haul Road - Reference to the need to determine the extent of ground improvement in relation to the Northern Mound at the detailed design stage (as reference in item 3.3.5) along with reference that the exact extent of ground treatment shown on these sections will be developed at detailed design stage (item 3.7.4). Without this detail we cannot be reassured that impacts on our land will not arise.

Drawing Ref: SZC-SZ0100-XX-000-DRW-100417 shows Northern Mound with indication that land levels are anticipated to change on RSPB land. There appears to be no key to the specific drawing, but elsewhere it is suggested that the green line represents current land level and the pink line represents post construction land level. The drawing shows the land level (pink line) on the RSPB land as lower post construction, but this is confusing as the design detail appears to show a different land level that terminates at the security fence with no indication of how this ground level keys into the DCO red line boundary and RSPB boundary.

Drawing SZC-SZ0100-XX-000-DRW-100414 and fig 3-10 indicating that the boundary of the haul road feature will run against the red line and RSPB boundary for a distance either side of the cross section illustrated, leaving continued concern that detail design will not avoid impacts on land in our ownership or the designated SPA, SAC, SSSI and Ramsar site.

SCDF - Fig 3.8 shows the SCDF 'blended into the SZB shoreline profile'. This is in contrast to the illustrated profile at the northern end (eg drawing SZC-SZ0100-XX-000-DRW-100414 and fig 3.14) where the SCDF is illustrated as following the profile of the northern mound, curving from a north – south to an east – west orientation. This is explained in 3.10.19 'At its northern extent, immediately beyond the interface with the BLF, the SCDF turns inland and grades into the HCDF as seen in Figure 3-14.' It is not explained how this approach will tie in with the north – south alignment of the natural shoreline that extends into the Minsmere – Walberswick SPA/SAC/SSSI and Minsmere RSPB Reserve.

Public Rights of Way (ProW) - 3.7.1 identifies that the Public Rights of Way (ProW) (the Suffolk Coast Path) will be redirected up and down the shoreline as necessary to facilitate construction of the permanent and temporary sea defences. The RSPB's expectation is that any redirection will be aligned to the existing designated footpath once it meets the RSPB boundary. Potential impacts of this need to be accounted for in the Recreational Displacement Monitoring and Mitigation Strategy. The RSPB has still not had sight of the methodology for baseline monitoring or any baseline results. We are disappointed by the lack of coordinated approach to this element of the project to date.

Fig 3-10 does not show the existing alignment, nor any proposed realignment of the permissive Sandlings Path once that part of the development is completed. We can therefore not confirm from the information made available to us so far that the present alignment does accommodate the realigned path on land within the 'SZC Limited' area. With the reference in 3.3.5 to the exact arrangements in this area still being subject to detailed design we remain concerned that this is an area of risk.

We conclude that this requirement does not presently adequately address concerns regarding our land holding and the Minsmere – Walberswick SPA/SAC/SSSI and Ramsar site. We request that we are consulted on the detailed design as appropriate to seek to alleviate these concerns.

Consultee	Date consulted	Date reply received
Theberton and Eastbridge Parish Council, Theberton and Eastbridge Action Group on Sizewell C (TEAGS); Minsmere Levels Stakeholders Group (MLSG)	N/A	14 January 2024

**Summary of comments submitted 17 November 2023:** All along the Suffolk coast we have significant issues with erosion, both constant and episodic. This has been observed in front of the proposed Sizewell C site even since the DCO Examination concluded. It is accepted that any structures which significantly extend beyond the natural sweep of the coastline gives rise to both upstream and downstream impacts of erosion and/or accretion and where the structure is mobile, it will begin eroding immediately following exposure to the natural longshore drift process. Analysis of the plans provided to the Discharge or Requirement 19 – Marine Infrastructure shows that the plan view of the Hard and Soft Coastal Defence has been misleading throughout the Development Consent Order consultations and submissions, even as late as the examination and that even now the plans submitted as part of DoR 19, 12 and 14 do not reflect the actual shape and seaward extent of the proposed infrastructure.

When the cross sections provided in the DoR 19 submission are examined, the new Sizewell C coastal defence will protrude variously between 35m (at cross sections D-D and E-E) and up to 120m (cross section C-C) from the existing sacrificial dune. Such a significant extension of the defence seaward, beyond the existing sweep of Sizewell Bay, which has been eroding further since the ground level surveys relied upon in these submissions, will be immediately subject to significant erosion as an artificial promontory and the Coastal Processes Monitoring and Mitigation Plan DoRs 12 and 14 will be under immediate and constant pressure to repair and recharge the Soft Coastal Defence.

The position of the Hard Coastal Defence toe at the Southern Tie In Roundhead is so extreme that it could easily come under severe pressure and be undermined. Theberton and Eastbridge Parish Council (T&EPC), Minsmere Levels Stakeholders Group (MLSG) and Theberton and Eastbridge Action Group on Sizewell C (TEAGS) request that the above planning applications for Discharge of Requirement (DoR) 19, 12 and 14 be refused.

Detailed Submission - The evidence and reasoning behind the statements above are taken from the information provided by Sizewell C within the Discharge of Requirements 19 submissions but also reflects statements and plans submitted during the Development Consent Order consultations and examination. It is notable that DoR 19 is still not a detailed design and that no dates are given for submission of such documents. Any assessments can therefore not be substantive. There are significant discrepancies between the General Arrangement Plan views of the HCDF/SCDF feature and the cross sections provided which will be further detailed below. The seaward extent of the SCDF and its slope are of considerable concern particularly at the Southern Tie In Roundhead of the defence and the other two DoRs (12 and 14) need a final detailed design for the CPMMP to be assessed appropriately. It now becomes clear that the modelling presented during the DCO for coastal erosion and the impact of the cessation of Sizewell B operation on the Sizewell B salient are simply wrong given that the Roundhead feature of the HCDF actually resides on and below the current SZB salient. These concerns were already communicated to the Planning Inspectorate during the DCO examination based on measurements made from the plan view of the HCDF/SCDF submitted to the Examining Authority but have now been detailed as a result of the provision of an additional cross section of the Hard and Soft Coastal Defence plans (HCDF and SCDF) submitted and updated in the DoR 19 application. In particular cross section C-C, of the Southern Tie In Roundhead feature, now shows that the seaward extent of this feature has not been represented properly in any submitted General Arrangement Plan views going back to the DCO examination submissions or in these latest submissions. The last plan submitted to the Planning Inspectorate's Examination of the Sizewell C Development Consent Order shows that the Hard Coastal Defence (HCDF) at its most southeastern point, the Southern Tie In Roundhead will be situated

significantly east (seaward) of the existing natural embayment profile between Minsmere Sluice, north of the site, and Sizewell village to the south of the proposed Sizewell C site.

There are clear discrepancies between the Coastal Defence Feature General Arrangement Plans and the Southern Tie In Roundhead eastings provided in the DoR 19 cross section C-C. Whilst cross-sections D-D and E-E agree with both the DCO and DoR General Arrangement Plans, the Southern Tie In cross-section at C-C, provided with DoR 19 submission, do not agree with DCO or DoR 19 General Arrangement Plans and it appears that both DCO and DoR 19 General Arrangement plans are identical apart from the indicators of the cross-sections. See Figures 1 through 4 below. The General Arrangement Plans do not represent the actual easterly positions of the Hard Coastal Defence Feature toe at the Southern Tie In, which is significantly east of the existing sacrificial dune and is several metres east of the current easterly edge of the Sizewell B salient. This is apparent from both the 2019 and 2020 existing ground lines shown in section C-C (Figure 4 below).

Furthermore, from cross sections D-D and E-E (Figure 3 below) the toe of the HCDF and the path above on the SCDF sand/shingle substrate at +5.2mOD rises seaward to +6.4mOD before sloping away at about 1:8 to meet the existing beach. From the toe of the HCDF it is ~60m before 0mOD (easting 647673) would be reached, although the 2019/2020 beach level is reached at about 35m (easting 647648). However, in the past 12 months overall beach levels have fallen again alongside significant erosion of the existing sacrificial dune so this may now be an optimistic evaluation. If we now look at cross section C-C where the toe of the HCDF is 38m further seaward (easting 647651) than the HCDF toe at D-D and E-E, this places the Southern Tie In Roundhead HCDF toe at roughly the same point where the SCDF, for three quarters of the length of the defence, meets beach levels measured in 2019/2020 and as indicated in cross sections D-D and E-E. According to the C-C cross section the centre of the Roundhead is in line with the toe of the defence at D-D and E-E (easting 647515), and the overall width of the Roundhead given by the chainage measurements is 77m. This confirms the toe at C-C being 38m further east/seaward of the main HCDF toe.

SZC stated that the slope of the SCDF at C-C would have to be greater than that along the rest of the frontage. However, the SCDF above the HCDF toe at C-C is -At the seaward extent of the northern three quarters of the SCDF. At +5.2mOD rising to +6.4mOD before being able to slope down to meet the beach. If the slope were to target 0mOD the slope needed would be about 1:2 which is too steep for a stable sand and shingle substrate SCDF to be established. The C-C cross section shows the slope to be the same as the slope at D-D and E-E which would push the SCDF out a further 82m to meet 0mOD. The cross section at this point does not extend far enough and does not have a 2019/2020 existing beach level to make a proper assessment. If the indicated 1:8 slope in cross section C-C is used there is no guarantee that it would reach the beach in 82m as the beach profile terminates prematurely. It is difficult to see how a stable slope can be formed at C-C unless the seaward extent of the HCDF/SCDF design protrudes significantly further than indicated on the General Arrangement plans, especially after accounting for the discrepancies mentioned above.

During the DCO examination additional modelling of wave action on the beach was submitted and one of the conclusions concerning the Sizewell B salient was that once Sizewell B ceased operation, within a few years the salient would be removed as SZC does not have a near shore outfall to maintain this artificial shingle accretion. That is clearly an erroneous conclusion because the Southern Tie In Roundhead feature of the new HCDF/SCDF for SZC sits right at the easterly apex of the Sizewell B salient. It would also indicate that no appropriate modelling of the proposed HCDF/SCDF design has been performed or reported to show what the impact of this design is for longshore drift and sediment transport. The Southern Tie In Roundhead, in particular, will be a physical intrusion into the seascape, significantly East and seaward of the current sacrificial dune and general curvature of Sizewell Bay in front of the Sizewell C site, ending relatively abruptly between 38m and 120m from the current sacrificial dune apex as it returns shoreward to meet with the existing Sizewell B sea defences. We believe that permitting these applications is irrational given that the HCDF/SCDF design in DoR 19 is currently flawed and the CPMMP cannot be assessed against a flawed design.

Furthermore - The potential for significant effects beyond their immediate boundary, in respect of the adjacent coastline and sand dune defences for RSPB, Sizewell A and B defences and Sizewell village. Further impacts both north and south cannot be ruled out and have not been modelled adequately. The CPMMP

cannot be assessed without credible HCDF/SCDF design. The designs and plans shown in the CPMMP document have the same incorrect General Arrangement Plans as discussed above and submitted for DoR 19. The CPMMP plans show the Soft Coastal Defence (SCDF) extending at least 60 metres from the toe of the HCDF and well beyond the existing natural sweep of Sizewell Bay. This is confirmed in the DoR 19 submission. Based on plans submitted to the PINS DCO Examination and in DoR 19, the most southeasterly extent of the Hard Coastal Defence is situated on and below the existing Sizewell B Salient, a structure that the applicant stated in the DCO will “relax” (erode) back to the natural sweep of Sizewell Bay within a couple of years of Sizewell B ceasing operation.

The HCDF toe at cross section C-C, the Southern Tie In Roundhead, is at significant risk of being exposed quickly because it is significantly seaward of the natural sweep of Sizewell Bay and maintaining the SCDF at this extreme point will be difficult from day 1 threatening the overall integrity of the structure of the HCDF itself and exposing the impracticality of the CPMMP. Whilst the CPMMP plan does not superimpose the HCDF/SCDF structure on the existing profile of the coastline, those in the DCO submissions and DoR 19 do. However, in the past two years that profile has significantly eroded and changed adding further concern that the proposals in the CPMMP against a flawed HCDF/SCDF design have no practical foundation.

The adaptive design of the HCDF/SCDF will raise the overall height of the defence and lower the toe from 0mOD to -1.5MOD. This will also push the eastern extent of the HCDF toe seaward for an additional 17m and the SCDF will have to be re-established with similar parameters to those discussed above. This is an even more severe impact on an already unsustainable design. Until the HCDF/SCDF structure is designed to ensure minimum impact on the coast by bringing the eastern/seaward extents of the HCDF/SCDF closer to the existing shoreline and natural sweep of Sizewell Bay, the structure as currently submitted in DoR 19 will only add to coastal impacts across the greater Sizewell Bay area.

The plans as currently submitted are unsustainable and the CPMMP will be unable to maintain the defence. As a group of concerned organisations we are of the opinion that these three Discharge of Requirements applications (12, 14 and 19) are inadequate and misguided and should be refused.

**Summary of comments submitted 28 December 2023 (updated 5 January 2024):** Updated response to Sizewell C Discharge of Requirements DC/23/4124/DRR and DC/23/2660/DRR. Following the updated plans for DC/23/4124/DRR - Discharge of Requirements 19 (DoR19) submitted by Sizewell C, the following is an update to the objection already submitted by Theberton and Eastbridge Parish Council, Minsmere Levels Stakeholders Group and Stop Sizewell C.

It would appear that a revised DoR19 proposal has now been submitted suggesting a revised design life of the HCDF to 2140 (still 20 years short of the developer's own expectation for spent fuel remaining on site) and they have also reduced planning parameters regarding flood and overtopping relative to the UK CP18 predictions (in both v3 and v4 of the document) to 84% of RCP 8.5 UKCP18 from 95% (para 3.1.4). We have no confidence in SZC as a developer when they flip-flop so dramatically on the design and design life of the HCDF nor where the confidence comes that the GDF will be capable of accepting EPR spent nuclear fuel by this optimistic date.

In the latest submission for DoR19, SZC have also adjusted the footprint of the roundhead at the southern end pulling the centre 20m westwards, towards the main site and Sizewell B (SZB), from Easting 647615 to 647595. That still places the foot of the HCDF several meters seaward of the SZB salient and shows the Soft Coastal Defence (SCDF) rising to +6.4m OD and then gradually sloping at the same design slope as for the rest of the SCDF. EDF have stated that this slope would need to be more abrupt given the seaward extent of this part of the HCDF, but that is not in evidence in its original or updated plans that are being requested for approval.

SZC have also stated quite clearly during the DCO examination that they expect the whole of the SZB salient to be lost within a few years of SZB ceasing operation, as there will be no outflow from the SZC reactors close to shore to maintain this feature, unlike SZB. This submitted design simply would not allow that as there will



be both HCDF on the salient and SCDF starting at +6.4m OD extending some 70-80m seaward until it reached 0m OD and, at this distance, the sea floor will be several metres below 0m OD. So this current plan does not even conform to expectations already set out by SZC in previous submissions.

This design will cause damage both north and south of its position and the claim that its position and SCDF shingle/sand protection can be managed through the Coastal Processes Monitoring and Mitigation Plan - DC/23/2660/DRR (DoR12) with recharge is fanciful. The distance that the roundhead HCDF foot is seaward of the existing SZB sacrificial dune (~30-40m) places the structure in serious danger of being exposed and undermined. These plans for both DoR19 and DoR12 should be rejected as damaging, impractical and unsustainable.

**Summary of comments submitted 14 January 2024:** Sizewell C Discharge of Requirements 12 and 19 - DC/23/2660/DRR and DC/23/4124/DRR Submission of Objection - On behalf of Theberton and Eastbridge Parish Council, Stop Sizewell C and Minsmere Levels Stakeholders Group, we believe that these two requests for discharge cannot be approved because the hard and soft coastal defence (HCDF and SCDF respectively) plans currently provided to East Suffolk Council by the applicant for DC/23/4124/DRR extends beyond the parameters provided in Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-100-DRW-100043) as required in Requirement 19 of the Development Consent Order.

Requirement 19 is clear that the parameters referred to include both the Hard and Soft Coastal Defences amongst other works at the coast. Cross-sections and outline plans provided for the Hard and Soft Coastal Defence design show the Soft Coastal Defence protruding seaward or some 80-100m beyond the foot of the Hard Coastal Defence toe, well beyond the parameters referred to above. Whilst the Hard Coastal Defence design itself may well remain within the parameters specified in Requirement 19, the majority of the associated Soft Coastal Defence works are significantly eastwards of the parameter boundary and thus are non-compliant.

There are also still significant inconsistencies in descriptions of the extent of the SCDF, in particular at the southern roundhead, which we have pointed out in both sets of plans submitted for this application.

Also in the latest submissions there are significant potential changes, including integrating the SZB and SZC coastal defences (given permission from SZB) and the implication that a changed waste strategy concerning nuclear spent fuel and long term protection may reduce or eliminate the need for the adaptive HCDF/SCDF design.

The first of these two suggestions is implausible, and factually incorrect, as any integration of SZB and SZC HCDF would require new safety cases be submitted to ONR for both SZB and SZC and may also significantly impact the current interim judgement by ONR of the SZC Nuclear Site License. It seems unlikely that this would be approved given the SZB coastal defences are not seismically qualified and consist of geotextile defences compared to the seismically qualified rock armour defence being planned for SZC.

The suggestion that the adaptive design of the SZC HCDF could be made redundant or unnecessary by potentially providing flood and potential overtopping defences at the Interim Fuel Store is unacceptable and is potentially a material change to the Development Consent Order. This suggestion is made without any supporting plans or indications regarding consultation with either the EA or ONR who would need to review and approve any such plans.

To compound this, the design criteria concerning climate change have also been relaxed from 95% RCP8.5 to 84% RCP8.5 when all the indications from climate science are saying that the effects of climate change are accelerating rather than relaxing.

This application with its flip-flopping of potential designs, none of which are at a level that can be considered close to a design with sufficient depth to be approved, indicate that the applicant is simply trying to deflect attention away from what is an unsupportable application to discharge Requirement 19. The current

application, DC/23/4124/DRR should be rejected as a breach of the conditions specified within the development consent order and for its unsupported and potentially material changes to that order. As DCO Requirement 12 is reliant upon an approved design for the Hard and Soft Coastal Defence through Requirement 19, approval cannot proceed for the submitted Coastal Processes Monitoring and Mitigation Plan, DC/23/2660/DRR, as a design that complies with Requirement 19 has not yet been submitted.

Consultee	Date consulted	Date reply received
Nick Scarr	N/A	7 November 2023

**Summary of comments submitted 30 October 2023 (updated 7 November 2023):** To: East Suffolk Council; Cc: ONR, EA, MMO, PCU, Therese Coffey; Subject: Update: the recent submission of documents relating to the flood defence design for Sizewell C have been released.

Sizewell C Discharge of Requirements (DoR) - Discharge of Requirement 19 - Main Development Site (MDS) Marine Infrastructure of the Sizewell C Development Consent Order. - Proposed Sizewell C Sizewell Power Station Road Sizewell Leiston Suffolk Ref. No: DC/23/4124/DRR | Received date: Mon 23 Oct 2023 | Status: Pending Consideration | Case Type: Planning Application. These documents defining sea defence designs require approval by East Suffolk Council with additional consultations, as I understand them, outlined below:

Requirement 19 [ESC planning ref DC/23/4124/DRR] Coastal Defence Plans - East Suffolk Council (ESC) has until 18th December to review and approve or otherwise DoR 19 - the coastal defence plans. The Marine Management Organisation (MMO) also has a role in the Hard and Soft Coastal Defence Features (HCDF/SCDF) as it goes below the mean high-water via consultation by ESC. The Environment Agency (EA) will be consulted by ESC on requirement 19. The Office for Nuclear Regulation (ONR) relies on the EA to act on its behalf.

Requirement 12 [ESC planning ref DC/23/2660/DRR] Coastal Processes Monitoring and Mitigation. - East Suffolk Council (ESC) has until 18th December to review and approve or otherwise DoR 12 - the CPMMP, the Coastal Processes Monitoring and Mitigation Plan. The MTF – the Marine Technical Forum members must be consulted and approve DoR 12, the CPMMP. (The MTF comprises: Environment Agency, MMO- Marine Management Org., ESC - East Suffolk Council and NE - Natural England). MMO also has to approve the CPMMP under the specific DoR (14).

I am disappointed that these plans do not reflect my concerns. I am also disappointed that there does not appear to be direct involvement by the ONR. I find that the Applicant’s work (both active and passive sea defence) appears too focussed on Sizewell C in isolation, particularly its hard and soft coastal defence features rather than studies of the implications to Sizewell C’s flood resilience of storm and surge action across the Greater Sizewell Bay (GSB) and loss of the GSB beachhead from shoreline retreat.

1) Shoreline retreat and the loss of the beachhead across parts of the Greater Sizewell Bay (GSB). There appears to be little or no analysis of the loss of the Dunwich bank and its effect on shoreline retreat across the GSB immediately to the north of Sizewell C. The Dunwich bank may double in size, may collapse and may do both of these things by 2140. No one knows. What we do know is that it is lowering now, it is made entirely of sand, sand is not retained by the system, and it will be subject to new, unknown hydraulic forces of climate change sea-level rise and storm frequency change. If the Dunwich bank further diminishes there will be accelerated erosion to the shoreline and beachhead of the Minsmere levels and the middle part of the Greater Sizewell Bay.

What will be the effect on Sizewell C’s flood resilience by this process and what is the response of regulators? The ONR has made clear that shoreline retreat across the GSB is just a ‘habitats’ matter and is hence not related to the flood risk safety case: Question “FR4 : It is recommended to use a conservative approach that should address the loss of major sections of the marshlands whether from depletion of the Sizewell-Dunwich banks or climate change sea level rise of anything above 1.5°C.” “ONR Response: This is essentially an environmental/habitats matter and therefore outside ONR’s vires.” In my view it would be prudent to fully analyse the case. Shoreline retreat across the marshlands and loss of beachhead would allow unbroken wave access to Goose Hill as discussed section 2.

The Marine Management Organisation expressed concerns in a letter sent to the Planning Inspectorate during the DCO: "5.1.7 In relation to p.20.4.77 on the future shoreline baseline geomorphic elements, it is assumed that the future baseline will resemble the present day. As mentioned above, the lack of assessment of changes to the offshore wave climate to a NE domination is a gap in the analysis. For the nearshore climate, it assumes the bank system is stable. However, the northern end of Dunwich bank has lowered 2 metres in the past 10 years; the most logical assumption would be for this trend to continue. This will affect the nearshore wave climate [and hence coastal erosion] and should be included." MMO Reference: DCO/2013/00021 Planning Inspectorate Reference: EN010012 MMO Registration Identification Number: 20025459 30 September 2020. Much reliance is placed on the CPMMP, the Coastal Processes Monitoring and Mitigation Plan, but the CPMMP is based on the 'Expert Geomorphological Assessment for Shoreline change', the EGA, a non-conservative assessment, which states that '...shoreline sinuosity will remain the same...' The CPMMP is underpinned by the EGA. A 'Plan B' is surely required - the EGA is essentially a best-case assessment - shoreline sinuosity may significantly vary, and it is certainly plausible that parts of the GSB beachhead may well be lost between now and 2140.

2) The new Adaptive Sea Defence requirements specified by the Applicant. If we consider the Applicant's January 2021 change submission found in document 'The Sizewell C Project, DCO Requirement 19: Main Development Site: Marine Infrastructure, Coastal Defences Design Report. October 2023' we see that EDF has increased the HCDF parameters: "An adaptive sea defence height of +16.4m OD excluding landscaping, with a maximum height of +18.0m OD " Clause 2.3.3. The Applicant informs us that there is a requirement for this level of sea defence protection which has been established by a conservative analysis of surge and wave action. The designed adaptive sea defence is, however, only on the seaward side of the main nuclear platform. The same surge and wave action that requires an 'up-to-18m' seaward defence will be acting over the Greater Sizewell Bay, it would therefore presumably be flooding over Goose Hill which is 5-7m AOD and onto the main nuclear platform which is 7.3m AOD?

It is difficult to understand why the current proposal for a 'one-sided-castle' approach to sea defence when the main nuclear platform is surrounded by low-lying land is not essentially absurd. In my view, Sizewell C needs to take account of wider shoreline change. The flood resilience and flood risk safety case for Sizewell C could be underestimated and the criteria applied to inform Sizewell C's flood defence requirements too restricted; sea defences for Sizewell C, rather than the current proposal, should encircle it, forming a 'Plan B', and include full protection to any spent fuel store, wet or dry, from Sizewell A, B or C that is in the vicinity. In my view the flood resilience and flood risk safety case for Sizewell C is then, underestimated and the criteria applied to inform Sizewell C's flood defence requirements are too restricted; the sea defences for Sizewell C, rather than the current proposal, should encircle it and include full protection to any spent fuel store, wet or dry, from Sizewell A, B or C that is in the vicinity.

**Summary of comments submitted 18 December 2023:** Comments on the Environment Agency Sizewell Stakeholder Engagement Meeting Tuesday 7th November 2023 15:30-17:00. Nick Scarr 17 12 23 - I note from the minutes of the above meeting that that the Environment Agency states, not fewer than seven times in response to questions about Sizewell C flood risk, that the flood risk safety case is the responsibility of the ONR rather than the Environment Agency. As follows: "Once the site becomes licenced the ONR will be the primary regulator for flooding on the Sizewell C site." "...it would be primarily an ONR matter." "Sizewell is likely to become be a nuclear licenced site and flooding of the site is primarily regulated by the ONR...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." "This is a question for ONR who lead on regulation of flood risks to nuclear sites." "In terms of implications for the site, that is mainly a matter for the ONR regulation," "This is a question for ONR who lead on regulation of flood risks to nuclear sites." "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"

The ONR's "...regulatory remit strictly only applies once an organisation has formally applied for a nuclear site licence and extends from this point to final delicensing of the site," and the Environment Agency appears to be abnegating any ongoing responsibility for the flood risk resilience of Sizewell C itself even though it has

exercised great authority for multiple, vital decisions to that end. During the DCO process the Environment Agency appeared to act as if it were a primary regulator for the flood risk assessment and the Planning Inspectorate appeared to accept the Environment Agency as a principal regulator for same. It would be reasonable to say this must then have been the understanding of the public in general. This primary role of the Environment Agency is made evident at Issue Specific Hearing ISH11, which can be watched here: <https://youtu.be/tAJwq0O83gs?t=335> If we take a further example—the approval given by the Planning Inspectorate for one of the most critical aspects of the Sizewell C Flood Risk Assessment case, the ‘Expert Geomorphological Assessment’ (EGA) for shoreline change across the Greater Sizewell Bay—we see that its approval was essentially based on Environment Agency affirmation:

Critical Aspect 1 - “...the MTF (Environment Agency, MMO, ESC and NE) serves to provide independent scrutiny of the assessments, monitoring and mitigation during pre-application, the Examination, and post Examination. The ExA considers that this provides robust scrutiny of the Applicant’s evidence, and that a further EGA would be superfluous”. (MTF - Marine Technical Forum, EA - Environment Agency, MMO- Marine Management Org., ESC - East Suffolk Council and NE - Natural England). See: Sizewell C New Nuclear Power Station Examining Authority’s Report of Findings and Conclusions and Recommendation to the Secretary of State for Business, Energy and Industrial Strategy VOLUME 2 OF 4 paragraph 5.8.123. In other words, the Regulators—primarily the Environment Agency—validated and accepted the non-conservative, non-precautionary EGA for shoreline change in the Greater Sizewell Bay and the Examiners and BEIS, in turn, accepted and validated the position of the Regulators. In my view this particular approval is deeply flawed; how can it be correct for such a vitally important and underpinning assessment to assume best-case shoreline change outcomes for a nuclear build? A build, no less on an eroding coast in the face of climate change sea-level rise and storm frequency change.

If we take another critical example, again in my view deeply flawed, regarding the flood risk safety case, we see the same authoritative affirmation afforded by the Planning Inspectorate to the Environment Agency:

Critical Aspect 2 - “In respect of the Sizewell-Dunwich banks the ExA notes [ER 5.8.147/148] that in contrast ESC and the EA are satisfied that the Applicant’s assessment of these features is robust and the EA [ENVIRONMENT AGENCY] advises there is no strong evidence to suggest the system [i.e. THE BANKS] would lose these controls in the lifetime of the Proposed Development [ER 5.8.147].” Section 4.272 BEIS SzC Decision letter 20/7/2022 5.11.196. i.e., the Environment Agency is saying that there will be no change to the protective (wave reducing breakwater) Dunwich bank that protects the Sizewell C shoreline even though it is made only of sand and the Marine Management Organisation has warned that it has dropped 2m in the last decade and will probably continue to do so.

And finally: “The EA [ENVIRONMENT AGENCY] confirmed in the final signed SoCG [REP10-094] that there are no outstanding areas of disagreement with the Applicant with respect to the MDS FRA. [Main development Site Flood Risk Assessment]” Section 5.11.195 Section 5.11.196, Recommendation to the Secretary of State for Business, Energy and Industrial Strategy VOLUME 2 OF 4.

The Environment Agency, accepted by the Planning Inspectorate as a trusted and principal regulator, has then been decisive in determining the DCO approval of the Sizewell C Main Development Site flood risk assessment and safety case—stakeholders, however, have been informed by the EA at the above meeting that the ONR is in fact, the principal regulator, at least from the time a Nuclear Site Licence is applied for, and presumably therefore should not the ONR have been the responsible agent for making these critical flood-risk related decisions that occurred during the planning process?

The Environment Agency’s claim of the primacy of ONR governance and authority is also somewhat compromised by the fact that the ONR, during the DCO process, claimed that a critical coastal defence issue (the flooding and shoreline recession across the low-lying wetlands that surround Sizewell C), was, in fact “...outside its vires.” It is also the case that the ONR is not a member of the Marine Technical Forum and “not a consultee” on the recent submission of final sea defence plans... How, exactly is it supposed to effectively “lead on regulation of flood risk” for Sizewell C?

It is, so far, the Environment Agency that has “lead on regulation of flood risk” and, as the “...Environment Agency does not represent ONR as a consultee..” the ONR must presumably be obliged to accept the resulting planning decisions and approvals. How is regulatory efficiency and integrity likely to benefit from such confused roles and shifting responsibilities within the temporal frame of construction approval? Where do the ONR and EA stand in terms of deconfliction and reconciliation? Specifically, does the ONR agree its position of primacy as stated by the EA and secondly does the ONR accept the DCO approvals given by the EA regarding the Flood Risk Assessment cited above that I have described as flawed, namely: Does the ONR accept that it is the “primary regulator for flooding on the Sizewell C site” as stated by the EA at the meeting? The Joint document produced by the ONR and the EA also states: “The Environment Agency is the principal flood risk management authority in England providing a strategic overview relating to all forms of flood and coastal erosion risk” It is fair to be confused by these statements.

Does the ONR, as primary regulator for the flood risk safety case and resilience for Sizewell C have full accord with the Environment Agency’s positions validating and accepting non-conservative, non-precautionary assessments as explained above as ‘Critical Aspect 1’ and ‘Critical Aspect 2’?

Does the ONR, as primary regulator for the flood risk safety case and resilience for Sizewell C still consider its statement that “the loss of major sections of the marshlands whether from depletion of the Sizewell-Dunwich banks or climate change sea level rise” is nothing more than an “environmental/habitats matter” and therefore presents no flood or resilience risk to Sizewell C?

Does the ONR, as primary regulator for the flood risk safety case and resilience for Sizewell C maintain its position that shoreline retreat across the wetlands immediately to the north of the proposed Sizewell C is “outside its vires”?

The commercial and political imperatives that have driven the decision to build Sizewell C on one of the most vulnerable and unpredictable stretches of our coastline have, perhaps, made the job of regulators unduly challenging in their duty to precautionary assessment? Would it not also be fair to say that Regulation is obliged to the ‘Precautionary Principle’ in its assessments and otherwise is absurdity? It might be preferable to resolve these matters now rather than later.

Consultee	Date consulted	Date reply received
Mr. Mike Taylor	N/A	20 November 2023

**Summary of comments submitted on 16 November 2023:** The revised drawings are now on the East Suffolk Council website, thank you. However, there are still discrepancies with the blue line SZC boundary which we anticipate questioning today at a ONR/NGO forum. There may also be implications for the safety case for Sizewell B. This is the probably the first time that drawings have been supplied with correct grid lines, so we consider it is vital that any decisions made on the drawing/plans are made based on the correct plan. We must earnestly request that no decision is made without a thorough understanding of the possible implications. History shows that the Hinkley C site buildings plans had to be altered post consent. Please acknowledge receipt as a holding objection.

**Summary of comments submitted on 20 November 2023:** I wish to strongly object to the discharge of requirements which I believe should be rejected. I had to request further drawings because it transpired that the scale was incorrect. These drawings also have OS grid lines for It is now quite obvious that the sea defence for Sizewell C is far to the east of the original planning lines agreed firstly at the Layfield inquiry, secondly as planning conditions and undertakings for the consented Sizewell B in 1987 and later scoping documents blue and green lines for a Sizewell C prepared by Royal Haskoning in 2008. All these indicate that the local authority at the time Suffolk Coastal District Council and the Government and the developer were wrong to potentially endorse a permanent coastal defence feature drawings for approval in this location. Now I believe the council further risks the safety case of Sizewell B which aspires to operate until 2055. From a coastal process point of view the soft sea defence for Sizewell B would be at risk. I note that ONR have not been consulted and the Environment Agency response appears poor. Please register this as a formal objection.

Consultee	Date consulted	Date reply received
TOGETHER AGAINST SIZEWELL C	N/A	12 January 2024
<p><b>Summary of comments submitted on 17 November 2023:</b> TASC do not consider that this application adequately meets the requirement set out in the Sizewell C (SZC) Development Consent Order (DCO) and fails to demonstrate that the Sizewell C site can be kept safe for its full lifetime ie the slated 60 years of operation, plus the decommissioning period and the time required for spent fuel to be stored and then safely removed from the site. As such this application for discharge of Requirement 19 should be refused. On the basis that the sea defences and the CPMMP are intrinsically linked, the application for discharge of Requirement 12 should also be refused. TASC are aware that East Suffolk Council (ESC) have responsibilities under the Coast Protection Act and a duty of care for the safety of their residents and protection of the AONB. Accordingly, we should be grateful if you would take our following comments into consideration:-</p> <p><u>Change of design life of the Hard Coastal Defence Feature (HCDF) from 2140 to 2120</u> - Para 3.1.2 of the Marine Infrastructure Coastal Defences Design Report (MICDDR) states “The current timescale being considered for the design of HCDF is to 2120 accounting for climate change over this period.” However, the design submitted at DCO was for an operational design life of 2030 to 2140. Indeed, the Applicant confirms this, themselves, in para 3.1.2. The Applicant unsuccessfully tries to justify the change in design life of the sea defences to 2120 through the availability of the ‘Adaptive Design Approach’ – para 5.2.1 MICDDR states “The current stated timescale for the design life of the sea defences is to 2140. However, a timescale now being considered for the design of HCDF is to 2120 accounting for climate change over this period. The 2120 date represents the planned timescale for end of decommissioning of the main site and the start of interim spend fuel facility operation”. TASC draw attention to Para 2.3.1 of the MICDDR which advises that in January 2021 “The design life of the structure is 110 years (up to 2140 – extended to accommodate change in spent fuel storage strategy)”. The Applicant has failed to supply a new spent fuel strategy that justifies the new 2120 timeline. Indeed, the Applicant offers no explanation of how the removal of spent fuel from the SZC site by 2120 can be achieved or what is meant by ‘accounting for climate change’ – in TASC’s opinion, this means that as climate change is predicted to produce ever worsening adverse impacts, the Applicant is unable to demonstrate that the SZC site can be kept safe for its full lifetime (60 years of operation, plus the decommissioning period and the time required for spent fuel to be stored and then safely removed from the site), or justify the 2120 timescale as being an achievable date for all the spent fuel to have been removed from the site.</p> <p>Further watering down of climate change parameters is evidenced in para 3.1.3 which states, without any justification or explanation, “As part of design development, the climate change parameters adopted by the project are now the 84% of RCP 8.5 from UKPC 18. Previously the 95% [of RCP 8.5] was used.” Proposing a design life for the HCDF to 2120 is a further example of the Applicant’s lack of adherence to the precautionary principle. TASC draw ESC’s attention to National Policy Statement EN1 which states in para 5.8.7 “Where new energy infrastructure is, exceptionally, necessary in flood risk areas (for example where there are no reasonably available sites in areas at lower risk), policy aims to make it safe for its lifetime without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. [emphasis added] It should also be designed and constructed to remain operational in times of flood.” TASC consider that changing the design life of the HCDF to 2120 is a fundamental change to the SZC project so should be the subject of an application to the Planning Inspectorate as a material change to the SZC DCO. The 2120 date contradicts the Coastal Processes Monitoring and Mitigation Plan (CPMMP) that is being considered under DC/23/2660/DRR. The CPMMP cessation report, states “2140 is the end of the design-life for the HCDF, when all nuclear materials and safety functions will have been removed from the site” So either the application submitted to discharge Requirement 12 or this one for Requirement 19 is incorrect – they can’t both be right.</p> <p><u>Consideration of the full lifetime of the SZC site</u> - As ESC have a duty of care to protect the safety of its residents, TASC believe ESC need to acknowledge that spent nuclear fuel will be stored on the SZC site beyond the design life of the proposed sea defences i.e. beyond 2120., This was confirmed by the Applicants during the DCO examination when they advised that the full lifetime of the site would be till the mid-late 2100s i.e. long after 2120 (therefore, potentially unprotected from inundation from the sea). Spent nuclear fuel needs</p>		

to be stored on site until it is sufficiently cooled to safely move to a Geological Disposal Facility (GDF). This is supported by the Applicant's own DCO documents – para 7.7.92 of DCO document APP-192 (EN010012-001812-SZC\_Bk6\_ES\_V2\_Ch7\_Spent\_Fuel\_and\_Radioactive\_Waste\_Management.pdf (planninginspectorate.gov.uk) ) which states: "...the date for start of transfer of spent fuel from the Sizewell C site to a Geological Disposal Facility is 55 years after the end of generation. The process of transfer from the site will take approximately eight and a half years. On completion of transfer of the spent fuel from site, the spent fuel ISF would be decommissioned" and para 5.1.5 of APP-189 (6.3 Revision: 1.0 Applicable Regulation: Regulation 5(2)(a) PINS Reference Number: EN010012 Volume 2 Main Development Site Chapter 5 Description of Decommissioning) states: "decommissioning of the ISFS [the spent fuel store] would take 5 years".

The Office for Nuclear Regulation (ONR) separately confirmed to TASC that a total period of approximately 70 years is required for EPR spent fuel to cool sufficiently in order to be safely transported off the site and the spent fuel store decommissioned SZC is proposed on the basis that it will operate for 60 years so if SZC starts operating in 2035 then 60 years of operation would end in 2095 and the site cleared of spent fuel (i.e. fully decommissioned) approximately 70 years later, with an end date of around 2165 (at the earliest). Bearing in mind there is no UK GDF in existence, nor one guaranteed, and that the timetable for EPR fuel cooling is somewhat speculative as there is presently no history of storing EPR fuel, even a 70-year period from end of generation to final decommissioning is not precautionary. The new 2120 date is a fundamental aspect of the SZC project, determining the longevity of both the HCDF, the SCDF and the CPMMP. However, it is clear that spent nuclear fuel will still be on the SZC site beyond the new 2120 date, indeed beyond 2140, and the SZC site therefore left unprotected for its full lifetime.

It is clear from this application and the one for the discharge of the CPMMP, there is no Plan B to deal with a rapid acceleration of sea level rise (SLR), increased storm surges and more extreme weather events during the full lifetime of the SZC site. This application implies that the SZC site will no longer need protection beyond 2120 so the Applicants need to explain why this is the case. If the Applicants are now proposing to move the spent fuel from the site by 2120, then this application needs to include a new spent fuel strategy setting out how and to where the spent fuel will be moved, and at what cost. On this basis TASC believe that ESC does not have sufficient information to discharge Requirements 19 and 12 (DC/23/2660/DRR). As stated above, TASC are of the opinion that the change in design life of the HCDF should be treated as a material change to the Sizewell C DCO.

Positioning of the HCDF - TASC remind ESC that according to their final Statement of Common Ground at the end of the DCO examination (DCO document REP10-102 <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-008129-Sizewell%20C%20Project%20-%20Final%20SoCG%206.pdf>), in paras 8.12, 8.13 and 8.14 of the Coastal Processes section on pages 19-22 ESC did not agree; that the position of the HCDF could meet the 'hold the line policy'; that a precautionary approach had been taken with the sea defences; and, that the process takes sufficient account of risk and uncertainty associated with a 120/140 year asset life, respectively. And in ESC's letter of 14th April 2022 (<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-010799-East%20Suffolk%20Council.pdf>) when replying to BEIS's letter of 31st March 2022, ESC confirmed that this was still their position. In TASC's opinion, these proposals, together with those for the CPMMP do not meet the 'hold the line policy'; do not take a precautionary approach; and does not take into account the certainty, or the associated risks, that spent nuclear fuel will be stored on site beyond 2120.

While the proposed location of the entire sea defence is too far seaward, we are particularly concerned about the positioning of the southern Mound on the current beach/SZB salient. Drawing 100417 appears to show the toe of the HCDF only 37 metres from the 2030 MHW line. Having witnessed the loss of 1-2 metres of the sacrificial dunes in front of the SZC site due to erosion over the last 18 months, bearing in mind the anticipated loss of the SZB salient once SZB ceases operations and the natural embayment that will take place in front of the SZB/SZC sites, the positioning of the HCDF is totally unsuitable. There would appear to be great risk of the toe of the southern mound being very regularly exposed by the time SZC becomes operational. Once the sea meets the HCDF, which it is likely to do over the full lifetime of the SZC site, there will be inevitable

consequences for neighbouring properties (including SZB and its spent fuel store) – these proposals make no consideration of this, contrary to EN1 para 5.8.7 quoted above.

Limitation of scope of geomorphological/flood-risk assessments to the Sizewell C frontage - With the focus of these proposals and those for the CPMMP (DC/23/2660/DRR) being only on the SZC frontage, they do not adequately consider the risk of the lack of sea defences on the western boundary of the site. The Applicants have proposals for the height of the HCDF to be raised as part of the adaptive management arrangements with no consideration of the fact that if the height of the HCDF needs to be raised, there will inevitably have been a breach of the low lying dunes to the north of the SZC site and the sea likely being to the west of the SZC site. With no sea wall on the western elevation and the nuclear platform only being at 7.3m AOD, the site will be extremely vulnerable to flooding from the west at times of extreme still water levels with wave overtopping. Para 2.3.2 states “The above changes increased the extreme 1 in 10,000yr design Still Water Level from 5.95m OD to 7.02m OD. The design Still Water Level is defined as the estimated present-day extreme water level including surge, derived from a statistical analysis, plus the climate change increase in mean sea level and surge to the year 2140.” The risk of the site being flooded from the west should be taken into account by ESC when considering the adequacy of the proposed sea defences.

Observations from a general review of the MICDDR - Para 3.2.1 states “...the permanent sea defences that will be in place throughout the operational life of the power station and during decommissioning.” The permanent sea defences need to be in place for the full lifetime of the site up to the time that the spent fuel has been safely removed from the site, not just up to the end of decommissioning.

Para 3.3.3 states “The temporary HCDF will be installed as one of the earliest construction activities, prior to the removal of the existing ridge (“Bent Hills”) which provides a part of the existing SZB Sea Defences.” This appears to conflict with another discharge application, which stated that removal of the Bent Hills is included in Phase 1 works and construction of the temporary HCDF in Phase 2.

Para 3.3.5 states “The extent of ground improvement is to be confirmed at detailed design stage...” This confirms that the current proposals are not sufficiently advanced to be approved, the Northern Mound being an area vulnerable to inundation from the sea. The paragraph also refers to the ‘Access Road’ but it is not clear whether this refers to the road from the SSSI Crossing or the road from the BLF.

Para 3.4.2 states “The Adaptive Design will only be implemented if mean sea level rise exceeds the reasonably foreseeable design value during the operational life of the structures...” This appears to be saying that adaptation will only take place during either the operation of SZC or up to 2120, neither of which is acceptable, due to spent fuel still being stored on site beyond 2120.

Para 3.4.3 refers to “The water levels shown are at the end of design life (2140)...” Is the design life of the HCDF 2140 or 2120?

Para 3.4.5 states that “The design considers a number of constraints and interfaces, including:...The cut-off wall design and construction (anchors)”, but the potential implication of the anchors being installed adjacent to/within the sea defences are not disclosed. For example, ground anchors are not shown in figure 3-5.

Para 3.4.8 states “The Credible Maximum (CM) has been taken as the H++ scenario defined in UKCP09 (not updated for UKCP18).” No explanation has been provided to justify why the UKCP18 update has not been carried out and reflected in the Table 3-1 Design Parameters.

Para 3.4.10 sets out the Design Parameters, stating “The key inshore design parameters for the sea defence are...” These appear to be deficient as they do not say that Storm Surges are included.

Figure 3-4, by showing the cut-off wall at the southern end being built on the line of the current SZB sea defences, illustrates what TASC have been saying for years, that the SZC site is too small for two EPR reactors, hence the sea defences being located too far seaward.



Table 3-2 highlights that this is not the final design. Neither this application nor that for Requirement 12 refer to expected dates for important aspects of the sea defence design to be finalised. This supports TASC's view that this application is not suitable for approval. We question why the Applicants state that they need to use 6-10 tonne rock when 10-12 tonne rock has been used on other projects – this would appear to indicate that the Applicants are willing to compromise safety over cost. After over a decade of planning why have the Applicants not yet decided if the adaptive design will use rock or concrete armour. Why are there no details of the proposed soft-fill materials or reference to the geotextile membranes without which the soft-fill will get washed away?

Para 3.7.2 refers to the Sandlings Walk, stating "The cross sections shown in Figure 3-11 indicate the proposed location of this path." However, we can find no reference to the permissive path in Figure 3-11. This is one of many examples of inadequate drawings, many of which lack keys or have inaccurate keys, scales and details.

Para 3.10.6 highlights the incomplete nature of the current proposals – the modelling needs to take into account the recent huge loss of beach volume and erosion of the sacrificial dunes in front of the SZB and SZC frontages over the last couple of years. Modelling should assume that the recent rate of depletion and erosion will continue.

Para 3.11.1 states "The HCDF is designed to protect Sizewell C from a 1 in 10,000yr storm event with "Reasonably Foreseeable" (RF) climate change effects up to the end of its design life in 2140." Again, is the design life 2140 or 2120? Why does this paragraph and 3.11.2 refer to section 0?

Para 3.12.7 states "It is therefore not practicable to modify the operational SZC platform position or configuration, nor the position of the outer security fence relative to the internal platform area to lessen the seaward extent of the sea defences." This, again, highlights that this project is too large for its plot, forcing the impactful sea defences too far seaward. TASC believe, that in the light of recent coastal erosion, it is imperative that ESC insist on applying the 'hold the line' policy within the Shoreline Management Plan.

Para 3.12.11 concludes with "This will require further development in the detailed design phase" This, again, highlights important elements of the HCDF still need to be designed, thereby supporting TASC's contention that the current proposals are not sufficiently advanced to be approved.

Para 4.4.3 states "These Works will include excavation within the beach/ SCDF to permit the extension and lowering of the HCDF toe, and the transport and placing of armourstone units to form the new revetment." The works that are required on the beach to extend the toe of the HCDF for the adaptive design should take place now if SZC construction goes ahead, to save the disruption to the beach, its users and the natural environment at a later date.

Para 5.5.2 states "In the event (unlikely but possible) that the effects of climate change take a more severe trajectory, the permanent sea defence is designed so that its height can be adaptively increased in time to maintain adequate protection to the SZC site over its lifetime..." This statement contradicts other parts of the document that state that the adaptive design would only be made during the design life of the HCDF (to 2120) and not the full lifetime of the project till the mid-late 2100s.

Section 5.4 refers to the 10 yearly Periodic Safety Reviews, with the implication that these will be sufficient to meeting increasing hazards such as those from the impacts of climate change. However, the recent decade has taught us that extreme weather events are occurring at levels never witnessed before and are happening at an alarmingly increasing rate. A 10 year window needed for the construction of the adaptive sea defences and a near 10 year period needed to clear the site of spent fuel may be too long to meet the challenges ahead, particularly if we reach one or more of the climate's tipping points.

Incomplete design details - TASC have seen no reference to the Applicant's plans should the ground anchor/ground improvement trials not provide the required certainty needed for the construction of SZC's sea defences.

Potential harm/risk to Sizewell B - TASC are concerned about the potential adverse impacts from these works on SZB. These include the lack of protection due to use of soft materials between the SZB and SZC sea defences. Also, from the installation of ground anchors for the cut-off wall, potentially being beneath the SZB site.

Lack of consultation - TASC cannot understand why the ONR have not been consulted on this issue given their responsibility for assessing site safety as part of the Nuclear Site Licence application. Indeed, the ONR have advised that there is further work being undertaken by them for the ONR to be satisfied that the proposed sea defences are adequate. We are also surprised that the RSPB have not been consulted as immediate neighbours to the SZC development site – Drawing SZO-100-XX-000-DRW-100414 shows that the Northern Mound is being built right on the boundary with RSPB Minsmere. TASC query why 'Environment Agency – Drainage' are listed as consultees rather than the EA's flood risk/protection section. For all the reasons stated above, TASC are of the opinion that the applications for the discharge of Requirements 19 and 12 are inadequate and should be refused.

**Summary of comments submitted 23 November 2023:** Further to TASC's submission of 19th November relating to the discharge of Requirement 19, I want to draw your attention to an email sent 21st November by the Office for Nuclear Regulation (ONR) - copy included below. I believe that this reinforces comments we made in our submission:- 1. The design of the sea defences has not been finalised. 2. The 2120 design life for the sea defences has not been agreed by the ONR. 3. Sizewell C Co have more work to undertake in their attempt to arrive at a final sea defence design, including 'ongoing coastal flooding studies'. TASC believe that this confirms that it would have been prudent for ESC to have consulted with the ONR on this matter and underlines our assertion that ESC are not in a position to discharge Requirements 19 and 12, indeed it would be irrational to do so.

**Summary of comments submitted 28 November 2023:** Further to TASC's submission of 17th November relating to the discharge of Requirement 19, I would like to draw your attention to an email sent 27th November by the Office for Nuclear Regulation (ONR) to TASC - copy included below. This supports concerns TASC raised in our submission of 17th November relating to the safety case for the Sizewell B site being impacted by the proposals included in the application for the discharge of Requirement 19. Given the information supplied by the ONR, TASC believe that East Suffolk Council should consult with both EDF Sizewell B and the ONR regarding the discharge of Requirement 19 as the proposals under consideration have the potential to compromise the safety of Sizewell B.

**Summary of comments submitted 12 December 2023:** Further to our letter of 17th November regarding this application, we would comment as follows:- 1. On 15th November 2023 the Applicant submitted 3 revised drawings (100413, 100414 and 100418) but there was no note, either on the drawings or elsewhere, advising what had changed and the reasons why.

2. On 24th November 2023 the Applicants submitted 3 additional revised drawings (100417, 100416 and 100415). Again, there was no description of the changes made and why the changes were necessary.

3. On 28th November TASC drew ESC's attention to comments made by the Office for Nuclear Regulation (ONR) referencing their interest in the impact of these proposals on the safety of Sizewell B. These comments were in addition to the references to the ONR that TASC made in our submission of 17th November (the ONR's view on the period that spent nuclear fuel is expected to be on site and the further work that the ONR have advised the Applicants need to carry out on the sea defence design). TASC are therefore extremely disappointed that there is no indication that ESC has attempted to consult with the ONR regarding the design of the proposed sea defences.

4. The planning portal shows a submission dated 30th November 2023 from the Marine Management Organisation (MMO) regarding ESC's comments to the MMO relating to the sea defences. However, the comments from ESC are not disclosed.

5. TASC's previous submission has referred to the need for the sea defence proposals to adhere to the 'Hold the Line' position as part of the Shoreline Management Plan. We would like to add that the current proposals do not conform to the restrictions placed on developments affecting the Sizewell coastline which stipulated that development should not breach the blue and green planning lines set out in the Latfield inquiry report and the SZB planning permission. TASC bring the above matters to your attention as the comments in paragraphs 1, 2 and 4 above highlight a lack of openness and transparency that hinder the ability of interested parties to adequately scrutinise such important and potentially dangerous proposals affecting our safety and that of future generations. Paragraph 3 above highlights that unless ESC request and have input from the ONR, ESC's review of the sea defence design and associated CPMMP will not be sufficiently robust. For all the reasons stated above and for those mentioned in our earlier submissions, TASC remain of the opinion that the applications for the discharge of Requirements 19 and 12 are inadequate and should be refused.

**Summary of comments submitted 1 January 2024 (and amended 5 January 2024):** Before referring to the specific issues arising from this application document, TASC would like to express our disappointment that parties who have already made responses to this application were not notified of the new documents submitted on 14th December 2023. TASC appreciate that it is not a legal requirement to consult with the public but feel that there is justification for interested parties to be notified, in view of ESC's responsibilities to its constituents. Also, TASC has a role as a representative of concerned members of the public who appreciate that the Sizewell C (SZC) sea defences are of critical importance to ensure the public, the workforce and the environment can be protected from harm resulting from the flooding of the SZC site over its full lifetime i.e. up until the site is clear of spent nuclear fuel and the interim fuel store is fully decommissioned. TASC fail to understand the reason for there being no explanation within the 14th December documents to say why the documents have changed from those submitted in October nor what the changes are – a covering letter and tracked changes document would have been useful, indeed, are essential, also a document that can be searched and elements copied.

We noticed additional errors/omissions:- Para 1.1.2 Requirement 19 is not set out in DCO document REP7-007, as is stated. Para 1.1.8 refers to comments from ESC – which comments? Is this document Revision 4 or Ver 3 per this para? We question the statement in para 2.3.1 that the design life was extended to 2140 in September 2021 to accommodate a change in spent fuel strategy- we are not aware that there was a new strategy – as far as TASC are concerned the change was because the original timeline was totally inadequate. We note that there is no reference to the Environment Agency (EA), the Marine Management Organisation (MMO) or Natural England (NE) having been reconsulted. Given the importance of these proposals, TASC believes that it is imperative for these organisations to be contacted again. As mentioned in TASC's response to the October 2023 application documents, we consider it important that the Office for Nuclear Regulation (ONR) and Sizewell B (SZB) are consulted on DoR19.

TASC wish to register our strong objection to these revised proposals and conclude that this application is not of suitable quality/detail for ESC to be able to discharge Requirement 19 (nor Requirement 12) for the following reasons:-

1. These proposals do not constitute a final design.
2. The current proposals represent a material change to the approved SZC Development Consent Order (DCO)
3. These proposals do not accord with the revised CPMMP submitted on 14th December 2023.
4. The positioning and design of the proposed sea defences have adverse safety implications.
5. This application refers to proposals that have the potential to cause harm to designated sites that were not considered in the approved DCO.

The above issues are expanded below. These proposals do not constitute a final design - Requirement 19 states in para 3) "Work No. 1A(l) (permanent beach landing facility), Work No. 1A(m) (soft coastal defence

feature), Work No. 1A(n) (permanent hard coastal defence feature, preceded by a temporary hard coastal defence feature), and Work No 1A(aa) (temporary marine bulk import facility) must be carried out in accordance with the approved details.[emphasis added]” The implication of the above paragraph is that the stated Works can commence once the designs are approved by ESC ie once the conditions set out within Requirement 19 have been met. However, it is clear from this document that there are many important details that need to be finalised before the stated Works should be allowed to commence. Hence, with so many details still needing to be finalised, it logically follows that Requirement 19 cannot be discharged by ESC because these proposals are not the final design. The following references found in this document unequivocally demonstrate that these proposals are not the final design, as SZC Co (the Applicant) clearly state that changes will be made:-

Para 1.1.4 refers to ‘the final design’ being ‘reserved for submission and approval under Requirement 19’; Para 3.1.3 refers to ‘The intended approach...is to investigate local protection of...’ and ‘The latest position...’ Para 3.1.5 refers to the possibility of ‘changes made during detailed design’; Para 3.3.5, refers to the extent of ground improvement required for the sea defences (including the Northern Mound) and SSSI Crossing being confirmed at detailed design stage; Para 3.6.3 talks of waiting until the detailed design stage with regard to the positioning of the southern roundhead and possible tie-in with the existing Sizewell B (SZB) sea defences – TASC consider it totally unacceptable at this stage to not have such important aspects of the sea defences finalised and, where relevant, agreed with SZB; Para 3.12.20 refers to more detailed design proposals for ground strengthening, slope stability and soil liquefaction, needing to be carried out; These references make it crystal clear that uncertainties and circumstances exist which could or will affect the final design and it would therefore be irrational for ESC to discharge Requirement 19 based on this application when SZC Co itself acknowledges that the designs are yet to be finalised.

The current proposals represent a material change to the approved Development Consent Order (DCO) In relation to the protection of spent nuclear fuel stored on site after the plant has stopped operating, TASC believe that it is important to drawn ESC’s attention to considerations made by the Secretary of State in his Decision Letter (DL) when giving DCO approval to SZC:- DL Para 4.590 “The issues of coastal defences, and the impact of climate change on the modelling for the safety of those defences, were considered by the ExA in section 5.8 and section 5.7 of the ExA Report respectively. The ExA considers [ER 5.20.101] that the coastal defences have been designed so they can be modified if it is necessary to do so, with the monitoring of the sea levels secured through the CPMMP, and this is further reinforced by the obligations required by the NSL regime regulated by the ONR and the permits regulated by the EA. The ExA is persuaded [ER 5.20.102] that the Applicant’s conclusions are predicated on the basis that the site will be clear of nuclear material by 2140, the period which has been modelled for coastal defences, and under these circumstances the ExA consider the tests set out in paragraph 2.11.5 of NPS EN-6 [Note 1] would be met.[emphasis added]”

DL Para 4.597 states “The ExA concludes [ER 5.20.134] that there is sufficient evidence to reach a conclusion on this matter, but notes that the Secretary of State may wish [ER 5.20.135] to satisfy himself that the safe storage of radioactive waste will be achieved for the lifetime of the project in light of the modelling undertaken on coastal defences. The ExA notes that its conclusions [ER 5.20.133] on this matter are based on the removal of the ISFS by 2140, and that it is under these circumstances that the ExA are of the view that the policy tests in the NPS are met”

DL Para 4.598 states “The Secretary of State agrees with the ExA’s conclusions on this matter. In reaching this conclusion the Secretary of State has noted the further information provided by the EA with regard to the coastal defence modelling and also notes that the Applicant is required to obtain an NSL” It is clear from the above that the SZC DCO was approved on the basis that the Interim Spent Fuel Store (ISFS) will be removed from the SZC site by 2140. The intention of the Applicant (SZC Co) to develop a new spent fuel strategy clearly represents a material change to the approved SZC DCO project. This is set out in Para 3.1.3 which states that 2140 is now the intended date by which ‘all nuclear fuel is removed from the operational station and moved to the ISFS’ and further states ‘...that all nuclear fuel will be removed from the ISFS to the Geological Disposal Facility by 2160...’. Bearing in mind the Applicant’s DCO documents (APP-189 para 5.1.5) advises that it would

take approximately 5 years to decommission the ISFS, the current proposal is a 25 year change (from 2140 to 2165) in the timeline ie a material change to the approved SZC DCO.

Para 3.1.3 also states ‘the intended approach...is to investigate local protection of the interim Spent Fuel Store such that the entire SZC site does not require such stringent protection from coastal flooding’. This would also be a material change to the approved SZC DCO as the intention is that the ‘Performance of the HCDF can then be relaxed once all nuclear material is removed from the operational station and moved to the ISFS (by 2140)’. This proposed change to the spent fuel strategy suggests that the SZC site cannot be kept safe for its full lifetime making it imperative that these changes are treated as a material change to the approved SZC DCO, so they can be fully and properly scrutinised. It is essential that the SZC site and access route can be protected for its full lifetime ie until all the spent nuclear fuel is removed from the site and the ISFS is decommissioned (2165, as derived from SZC Co’s current submission plus the 5 years mentioned previously). The duration of the design life of the sea defences is intrinsically linked to the Decommissioning and Waste Management Plan (DWMP). It is not appropriate to wait until a future decommissioning plan is developed to determine the full lifetime of the site. It is clear that the new spent fuel strategy, incorporating the timeline for the DWMP and arrangements for the safe storage of spent fuel, need to be agreed before Requirement 19 is discharged. If it is not, future generation could be left with a 60-year accumulation of spent nuclear fuel and no effective flood defences to protect it. Such a situation would be morally indefensible, especially in light of the statement to be found at Para 5.2.4 of the Applicant’s DCO document APP-189 which recognises that the site needs to be ‘decommissioned in a safe and controlled manner, and not left to pose a hazard for current and future generations’.

Para 3.1.5 claims that any design changes to the current proposals, once approved, would be treated as ‘a variation to Requirement 19’ but the above 25-year proposed change to the timeline is an example of how SZC Co’s proposed changes are of such significance that they should be treated as a material change to the approved SZC DCO, not merely a variation to Requirement 19. One such further material change is already hinted at by SZC Co in these current proposals at Para 5.2.1 where it suggests a reduction from the DCO parameter of a design life of the sea defences from 2140 to 2120. It states that this is due to “accounting for climate change over this period” – this requires explanation as it appears to be saying that the site cannot be kept safe beyond 2120. This application for discharge of Requirement 19 has only reinforced TASC’s view that SZC Co’s plans are inchoate, having been poorly thought through – the October 2023 DoR19 application stated that the design life of the sea defences was 2120 and without any explanation or justification it submits this further application moving the design life back to 2140 with a suggestion that they might change their minds back again to 2120. It looks distinctly like SZC Co cannot demonstrate that the SZC site can be kept safe for its full lifetime and its attempts to disguise this unavoidable but unwelcome reality have resulted in this flip-flopping of its proposals.

The question that needs to be answered urgently is, has SZC Co completed further flood risk modelling since they stated that the sea defence design life was 2120 in their October 2023 DoR19 application, to justify a 20-year extension to 2140 in this document?

Para 3.4.2 states ‘The Adaptive Design will only be implemented if mean sea level rise exceeds the reasonably foreseeable design value during the operational life of the structures’. This is another material change as the ‘operational life’ of the plant is currently planned to be 2095, assuming it becomes operational in 2035, much earlier than the 2140 lifetime of the site approved in the SZC DCO. SZC Co’s current proposals move the SZC full lifetime timeline to 2165. Therefore, is it now SZC Co’s intention to leave the Sizewell site unprotected for the last 70 years of its lifetime, ie the time required to complete decommissioning, spent fuel removal and decommissioning of the ISFS?

In Para 3.1.4 SZC Co have reduced the climate change parameters without explanation or justification, this being another significant change to the approved SZC DCO. We assume this change has been implemented to reduce climate change impacts in its modelling – another indication that the SZC site cannot be kept safe for its full lifetime (till at least 2165).

These proposals do not accord with the revised CPMMP submitted on 14th December 2023. TASC note that the Coastal Processes Monitoring and Mitigation Plan (CPMMP) proposed on 14th December 2023 (under ref DC/23/2660/DRR) advises that it has a design life to 2140 which is at odds with the 2165 date referred to above derived from this DoR19 application document. The positioning and design of the proposed sea defences have adverse safety implications. These proposals are not a complete design profile for the sea defences. The uncertainties surrounding the current SZC co.'s proposals represent real risks to the safety of local and wider communities.

Paras 5.2.1 and 5.2.2 refer to the lifetime of the site. As mentioned above, due to the need to ensure the spent nuclear fuel stored on site is kept safe, the full lifetime of the site needs to be defined and agreed before Requirement 19 can be discharged. TASC's comments about this issue are set out above so there is no need to repeat them here. With reference to the claim in para 5.2.2 that the site can be kept safe because the sea defence 'is designed so that its height can be adaptively increased in time to maintain adequate protection of the Sizewell C site over its lifetime', TASC maintain that this does not reflect the potential rapid changes that could result from climate change, such as passing one or more of the major 'tipping points'. Taking a decade to plan and install the higher adaptive sea defences (para 5.4.4) could be too late. This also ignores the comments made in our 17th November 2023 submission, insofar as if sea level rise etc are at a point when the height of the HCDF needs to be raised, this will also be a time when the sea will have breached the soft coastal dunes to the north of the SZC site meaning that the SZC site will be vulnerable to flooding from the west. Figure 3.6 illustrates that sea level at the height shown (triggering the need for the adaptive design) would clearly flood the site if it approaches from the west. The only protection of inundation from the west is the 7.3 metre height of the platform. In discussions with the ONR, we know that the regulator is aware of this potential issue, the result of which could be the need to build flood protection on the western boundary. Due to the shortage of space on site, this would probably involve building further into the Sizewell Marshes SSSI and the AONB, the impacts of which have not been assessed.

Para 3.4.11 refers to coastal geomorphological processes, but only in front of the SZC site. TASC have seen no reference to such processes just to the north of the site and the risk of flooding arising from breach of this low-lying soft coast.

Para 3.6.2 states that 'numerical modelling indicates this narrower section of the SCDF [in front of the southern roundhead] has sufficient volume to provide protection against 1 in 10,000yr storm events' but it needs to confirm this remains the case when the SZB salient is lost once SZB ceases operations. Being a narrower section implies a sharper gradient – has this been assessed as being acceptable to/safe for recreational users? Siting the southern roundhead on the SZB salient will produce a greater risk that the HCDF will be compromised especially as that part of the coast is likely to revert to a natural bay.

In paras 3.6.3 and 3.6.4 SZC Co make it clear that the plans for the tie-in of SZC's sea defences with SZB's sea defences have not been finalised and are 'subject to acceptance by SZB'. Requirement 19 should not be discharged until SZB's position on this issue has been advised to ESC – which is why ESC should consult with SZB.

Para 3.10.12 provides details of the various layers of the SCDF confidently predicting that the HCDF will not be impacted. TASC consider this complacency ignores the numerous examples of the unforeseen impacts of climate change over the last few years. In TASC's opinion, Sizewell C is an unacceptably risky development to install and expect to be kept safe from unforeseen ravages of climate change over its full lifetime on such a vulnerable coastline.

Table 3.1 shows that the Reasonably Foreseeable Design relies on protection from offshore banks. TASC do not consider this is a reasonable assumption insofar as it is unreasonably over optimistic given the MMO have advised that the Sizewell-Dunwich Bank has already lost 2 metres over a recent 10 year period.

TASC have concerns that Para 3.3.4 does not state whether the THCDF will be installed before the existing Northern mound is due to be removed. The THCDF needs to be in place before removal of the existing

Northern Mound, otherwise SZB's flood defences would be compromised. TASC have seen no evidence that consideration has been given by SZC Co to the Bent Hills and Northern Mound being part of the legal requirement for mitigation as part of the SZB planning permission. TASC suggest that ESC should satisfy themselves that there are no legal requirements for the Bent Hills and Northern Mound to be retained as part of SZB's planning permission.

This application refers to proposals that have the potential to cause harm to designated sites that were not considered in the approved DCO - TASC are aware that ESC will need to be mindful of their new responsibilities that came into force on 26th December 2023 under the Levelling-up and Regeneration Act (2023), which obligate statutory bodies 'to further the purpose of an AONB', rather than just pay regard to its purpose, when considering any projects that will have an impact on an AONB. TASC suggest that the new spent fuel strategy may involve impacts on the AONB if SZC Co decide to have localised flood protection of the ISFS. These plans would not have been considered in the approved SZC DCO and could have had implications for the planning balance. The ISFS is currently planned to be built on the western edge of the site. Given the obvious space constraints that exist on site, there may be a need to encroach further into the Sizewell Marshes SSSI/AONB to provide localised flood protection for the ISFS. Without full consideration of SZC Co's new spent fuel strategy in relation to the discharge of Requirement 19, the potential impacts on the AONB will not be assessed.

The considerations set out in section 3.12 merely serves to support TASC and other interested parties' opinion that the SZC development is clearly too big for the available site. SZC Co, in Figure 3.1, should have shown the 'green line' eastern limit of development set out and agreed in the Layfield SZB inquiry report. TASC have attached details of the green line referred to in para 98.7 b) of the Layfield inquiry into SZB which states that 'In accordance with the Undertaking given in 1959 no permanent structures should be placed East of the [green] line[shown in Fig.98.2] in order to protect the area of the dunes and the beach'. The sea defences, as currently planned, will breach the SZB green line undertaking. TASC suggest that ESC should satisfy themselves that there are no legal requirements retained as part of SZB's planning permission, that restrict permanent development to the west of the green line. Building to the east of the green line will destroy the dunes and beach (including the vegetated shingle) that the undertaking was put in place to protect.

Should ESC discharge Requirement 19 prematurely and the related Works commence only to have to cease if the ONR refuse to give SZC a nuclear site licence due to the inadequacies of the flood protection measures, then unnecessary harm will have been inflicted on the AONB. This avoidable harm would be in contravention of ESC's responsibility to ensure development furthers the purpose of the AONB and would leave the authority vulnerable to legal action. So, it would be prudent for ESC to only discharge Requirement 19 once the ONR have confirmed that they are happy with the flood protection measures and safety of the site for its full lifetime.

TASC note that, at this late stage of the proceedings, SZC Co have finally acknowledged that spent nuclear fuel will remain on the Sizewell C site until 2160. It is therefore imperative for SZC Co to prepare a new spent fuel strategy combined with a final design of the sea defences modelled to 2165 (which takes into account the new 2160 timeline and the time taken to decommission the ISFS). Without this and for all the reasons stated above, TASC are of the opinion that the application for the discharge of Requirement 19 should be refused.

Note 1. NPS EN6 para 2.11.5 states "Proposals for waste management facilities that either form part of the development of the NSIP or constitute "associated development" for the purposes of the Planning Act 2008 should be considered by the IPC in the same way as the rest of the NSIP using the principles and policies set out in EN-1, this NPS and the provisions of the Planning Act 2008. Annex B sets out that other facilities for the interim storage of waste may come forward. However, in the absence of any proposal the IPC should expect that waste would be on site until the availability of a GDF."

**Summary of comments submitted 5 January 2024:** Further to my emails of 1st and 4th January, I realised that I had not updated the TASC submission for an error (page 6 of the original document referred to changes

to the 'National Planning Policy Framework' whereas it should have referred to the 'Levelling-up and Regeneration Act (2023)'. I have enclosed a copy of the amended document together with the two unchanged supporting schedules which I should be pleased if you could use to update the planning portal.

**Summary of comments submitted 12 January 2024:** Re: DC/23/4124/DRR | Discharge of Requirement 19 - Main Development Site (MDS) Marine Infrastructure of the Sizewell C Development Consent Order. | Proposed Sizewell C Sizewell Power Station Road Sizewell Leiston Suffolk. Please accept this email as a submission for the planning portal. TASC note that the applicant's updated Coastal Design document submitted on 14th December 2023 states in the final sentence of para 3.1.3 that the Interim Spent Fuel Store (ISFS) 'already lies to the east of the site'. TASC consider that this suggests another material change to the approved DCO - throughout the DCO, and since, the ISFS has always been shown as being sited in the south west corner of the site. TASC would like East Suffolk Council to seek clarification from the applicant as to whether this is another error or another material change to the DCO, particularly as the new positioning of the ISFS in the latest proposals would place the ISFS in a position far more vulnerable to the impacts of climate change, than the siting that was agreed in the DCO.

## Summary

Sizewell C is a new nuclear power station granted a Development Consent Order (DCO) in July 2022 by the Secretary of State for Business, Energy, and Industrial Strategy. This discharge of requirement application relates to Requirement 19: 'Main development site: Marine infrastructure' and provides the following documents/drawings:

- The Sizewell C Project - DCO Requirement 19: Main Development Site: Marine Infrastructure Coastal Defences Design Report - Revision 5.0 (January 2024);
- The Sizewell C Project - DCO Requirement 19: Main Development Site: Marine Infrastructure Drawings For Approval – Revision 1.0 (October 2023);
- The Sizewell C Project - DCO Requirement 19: Main Development Site: Marine Infrastructure Illustrative Visuals – Revision 1.0 (October 2023);
- The Sizewell C Project - DCO Requirement 19: Main Development Site: Marine Infrastructure Design and Access Statement: Coastal Defence Design Principles - Statement of Compliance – Revision 1.0 (October 2023);
- Drawings:
  - SZC-SZ0100-XX-000-DRW-100410 – Revision 01 – Key Plan;
  - SZC-SZ0100-XX-000-DRW-100411 – Revision 01 - Permanent BLF - Layout, Plan, Sections (Construction) Work 1A(l);
  - SZC-SZ0100-XX-000-DRW-100412 - Permanent BLF - Layout, Plan, Sections (Not in operation with deck off) Work 1A(l);
  - SZC-SZ0100-XX-000-DRW-100413 – Revision 02 - Temporary Marine Bulk Import Facility Layout, Plan and Sections Work No.1A (aa);
  - SZC-SZ0100-XX-000-DRW-100414 – Revision 02 – Permanent Coastal Defence Feature General Arrangement Work No.1A(n) Work No.1A(m);
  - SZC-SZ0100-XX-000-DRW-100415 – Revision 03 – Permanent Coastal Defence Feature Typical Section Work No.1A(n) Work No.1A(m);
  - SZC-SZ0100-XX-000-DRW-100416 – Revision 02 - Permanent Coastal Defence Feature Typical Section Adaptive Design Work No.1A(n) Work No.1A(m);
  - SZC-SZ0100-XX-000-DRW-100417 – Revision 03 – Permanent Coastal Defence Feature Typical Section (Northern Mound) Work No.1A(n) Work No.1A(m);
  - SZC-SZ0100-XX-000-DRW-100418 – Revision 02 – Temporary Coastal Defence Feature General Arrangement Work No.1A(n);
  - SZC-SZ0100-XX-000-DRW-100419 – Revision 02 – Temporary Coastal Defence Feature Typical Sections.



## Site Description

Sizewell C is a new nuclear power station being developed at the existing Sizewell power station estate on the Suffolk coast, near the town of Leiston. A DCO was granted in July 2022. The documents/drawings submitted with the application relate to the Main Development Site.

## Proposal

Sizewell C Ltd has a Development Consent Order (DCO) to build and operate a new nuclear power station at Sizewell, Suffolk. The technical report submitted describes the engineering design for the proposed Sizewell C sea defences which has been developed by the SZC Limited engineering team in collaboration with Cefas, the project landscape architects, rights of way specialists, and ecologists to enable the delivery of an integrated coastal defence feature that reflects the existing and future coastal characteristics.

To discharge Requirement 19, the Applicant was required to submit details of the layout, scale and external appearance of the proposed marine infrastructure associated with the Sizewell C project. As set out in the submission materials provided by the Applicant, this includes a temporary hard coastal defence feature taking the form of a sheet piled wall for which construction will commence as soon as a suitable access is made available to the works area. The temporary defence will be installed as one of the earliest construction activities and it will protect the existing SZB nuclear power station and the SZC main construction areas excavation from coastal flooding during the construction phase.

This will be followed by the permanent hard coastal defence feature (HCDF) which will be constructed towards the end of the construction phase once bulk excavation, filling, and main construction activities for SZC are completed. Following construction of the HCDF, the soft coastal defence feature (SCDF) profile will be formed using dredged imported shingle material and any suitable site won material. The primary purpose of the SCDF is to maintain the natural alongshore drift of sediments and to reduce the likelihood of HCDF exposure.

Additionally, the project includes the construction of a permanent beach landing facility and a temporary marine bulk import facility. The Applicant's submission materials listed in the Summary section above seek to demonstrate that the proposed marine infrastructure is in general accordance with the design principles set out in Chapter 5 of the Main Development Site Design and Access Statement as well as in accordance with the Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-000-DRW-100043); and include a monitoring and adaptive sea defence plan that sets out the periodic monitoring proposals for the sea defence features, their effects on coastal processes and the trigger point for when the crest height of the sea defence would need to be increased to 16.9m (AOD).

This application's submission materials are provided in accordance with Requirement 19 of the Sizewell C DCO which states:

### **Requirement 19:**

*'Main development site: Marine infrastructure*

*(1) Construction of Work No. 1A(l) (permanent beach landing facility), Work No. 1A(m) (soft coastal defence feature), Work No. 1A(n) (permanent hard coastal defence feature, preceded by a temporary hard coastal defence feature) and Work No. 1A(aa) (temporary marine bulk import facility) must not commence until details of the layout, scale and external appearance of that work have been submitted to and approved by East Suffolk Council in consultation with the Marine Management Organisation and the Environment Agency.*

*(2) The details referred to in paragraph (1) must:*

*(i) be in general accordance with the design principles set out in Chapter 5 of the Main Development Site Design and Access Statement;*

*(ii) be in accordance with the Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-100-DRW-100043); and*

*(iii) include a monitoring and adaptive sea defence plan that sets out the periodic monitoring proposals for the sea defence features, their effects on coastal processes and the trigger point for when the crest height of the sea defence would need to be increased to 16.9m (AOD).*

*(3) Work No. 1A(l) (permanent beach landing facility), Work No. 1A(m) (soft coastal defence feature), Work No. 1A(n) (permanent hard coastal defence feature, preceded by a temporary hard coastal defence feature), and Work No 1A(aa) (temporary marine bulk import facility) must be carried out in accordance with the approved details.'*

Note: It has been brought to ESC's attention that there is a typographical error in the DCO regarding the drawing reference number for the 'Main Development Site Operational Parameter Plan – Operational Platform'. This is referenced in Requirement 19 as 'SZC-SZC100-XX-100-DRW-100043' however the correct reference is 'SZC-SZC100-XX-000-DRW-100043'. However, it remains clear from the description of the drawing within Requirement 19 which specific parameter plan is being referred to, also denoting the reference number ends in 100043 which remains unchanged. ESC therefore refers to the correct reference where required within this discharge report.

### **Planning Considerations**

DCO Requirements 19 (this application) and 12 (DC/23/2660/DRR) relate to ESC's interest in how those parts of the Sizewell C development that are in, or may impact upon, the marine environment, may affect coastal processes over the development life. ESC's response to information submitted by the Applicant and to feedback from consultees to the Discharge Application consultation, is therefore limited to this scope.

ESC's objective, under powers granted to Maritime Local Authorities by the Coast Protection Act 1949, is to ensure that the Sizewell C development does not cause a disruption to coastal processes to the significant detriment of adjacent shorelines. In order to do this, ESC will ensure that the Applicant's submitted materials meet a reasonable test of compliance of this objective along with the requirements set out in the DCO, ensuring sediment transport is maintained along the development's North Sea frontage. It is also worth noting that under the terms of the CPMMP (being discharged under application DC/23/2660/DRR), the Applicant is obliged to maintain longshore sediment transport at any cost while the SZC flood defence is in place, unless / until this obligation is amended or removed by agreement with ESC and the Marine Management Organisation (MMO) in consultation with other coastal management organisations.

ESC's position is also constrained by decisions taken by the planning inspector during the DCO process in which ESC raised several concerns that were considered but not agreed with. On these matters ESC has accepted the DCO position and is not pursuing them further as part of the Requirement discharge process. The discharge of DCO Requirements 12 and 19 does not include the assessment and approval of works that provide flood resilience. This aspect is overseen by the Office for Nuclear Regulation (ONR) with input by the Environment Agency (EA) and is the subject of a separate approval process. The ONR was approached during the Requirement 12 and 19 Discharge consultation period and given an opportunity to have input to the Requirement discharge process. However, it declined because it is engaging directly with SZC on flood resilience matters.

### **Marine Infrastructure layout, scale and external appearance**

As set out in the Summary section of this discharge report, the Applicant has submitted details relating to the layout, scale and external appearance of the proposed marine infrastructure associated with the Sizewell C project under the discharge of Requirement 19. The project includes a temporary hard coastal defence feature, the permanent hard coastal defence feature, the soft coastal defence feature, a permanent beach landing facility and a temporary marine bulk import facility. ESC consulted with the MMO and EA as stipulated in the Requirement, with the comments and feedback received being considered within this discharge report. Details of the layout, scale and external appearance are summarised below highlighting some of the key features for each aspect of the marine infrastructure as depicted in the submitted drawings and illustrative visuals:

- Temporary hard coastal defence feature - The temporary hard coastal defence feature will protect the existing Sizewell B (SZB) nuclear power station and the Sizewell C main construction area excavation from coastal flooding during the construction phase. The feature will comprise a sheet piled wall having a crest height of +7.3m above ordnance datum, extending to a depth of approximately 8m below ordnance datum. It will overlap the existing SZB sea defences at the southern end, running north to form the perimeter of the main construction area and tying in with the northern mound. The alignment of the feature is depicted by the pink line on drawings SZC-SZ0100-XX-000-DRW-100414 and SZC-SZ0100-XX-000-DRW-100418 with a typical cross section being depicted in drawing SZC-SZ0100-XX-000-DRW-100419.
  
- Permanent hard coastal defence feature (HCDF) - The HCDF is designed to protect the power station boundary from erosion and the site itself from marine inundation during extreme (high) water levels. Except for the northern end, which is needed to accommodate the haul road from the BLF into site, the HCDF will be installed toward the end of SZC's Construction Phase. The HCDF has an Adaptive Design that allows the initial design to be extended to reflect higher sea levels and worse storms than those included in the base design. The specific level and form of the Adaptive Design will be refined prior to the point it is needed (if required) to account for specific, known climate change criteria as well as catering for any changes in required design life. Regardless of any need to extend the design life of the site, particularly the Interim Spent Fuel Store (ISFS) the Adaptive Design remains valid for a 2160 date. The HCDF includes a base layer of core material with a reinforced concrete wall on top and a grass slope on the landward side. Seaward of the reinforced concrete wall, the HCDF is made up of a rock under layer overlain by a rock armour layer (6-10 tonne quarried stone/rock). On top of this at the surface will be a layer of landscaping having a natural vegetated appearance similar in character to the SZB defence. The outward public facing slopes will have a typical gradient of 1:3 to aid the establishment of vegetation and to match the profile of the existing SZB defences. The seaward facing slope will be planted with coastal scrub and dune grassland species to achieve a naturalistic appearance. A drainage swale is also included in the space between the landward slope of the HCDF and the Sizewell C platform. This has been included as a beneficial feature which will increase the storage, infiltration, and guidance of runoff as well as any water overtopping the HCDF, it has no impact on the seaward extent of the HCDF which is driven by the adaptive design configuration. The swale will not be present in the adaptive design configuration. The HCDF layout, scale and appearance details are provided in the submitted drawings, with a typical section of the HCDF being depicted in drawing SZC-SZ0100-XX-000-DRW-100415, with a typical section of the adaptive design being depicted in SZC-SZ0100-XX-000-DRW-100416, and a typical section at the northern mound being depicted in SZC-SZ0100-XX-000-DRW-100417.
  
- Soft coastal defence feature (SCDF) - The SCDF is a maintained and volumetrically enlarged shingle beach located seaward of the HCDF, but distinct from the sandy subtidal beach. It will cover the seaward extent of the HCDF, burying the toe under several metres of sediment, and will be comprised of sediments similar to the native particle size distribution (i.e., without intentional coarsening). The purpose of the SCDF is to avoid (mitigate) disruption to longshore shingle transport (impacts) that would otherwise occur if natural coastal erosion were to expose the HCDF. The SCDF is primary mitigation designed to maintain the continuous sedimentary beach frontage and avoid HCDF exposure at SZC; maintain the longshore shingle transport corridor across the SZC beach frontage; and supply SCDF eroded sediments to the neighbouring beaches/frontages. The SCDF layout, scale and appearance details are provided in the submitted drawings, with the upper maintained profile and initial beach recharge profile being depicted in SZC-SZ0100-XX-000-DRW-100415, and the adaptive sea defence cross section being depicted in SZC-SZ0100-XX-000-DRW-100416.

- Permanent beach landing facility (BLF) - The BLF is located at the northern end of the HCDF and SCDF and consists of a 101m long piled deck that abuts to the haul road on the 5.2m ODN platform of the HCDF. The last 50m of the BLF deck will be seaward of MHWS and have mooring dolphins positioned at approximately 81m and 128m from MHWS. The BLF will consist of 28 piles in total, comprising 26 jetty piles (18 seaward of MHWS) and two fender/dolphin piles. The BLF jetty piles will have a 9.2m cross-shore spacing and 12m between each pair. The jetty piles will be approximately 1m diameter and the fender/dolphin piles approximately 2.5m diameter. The BLF fenders, dolphins and marine piles would be installed using a jack-up barge or a walking jack-up barge or similar, whilst the BLF jetty would be installed using a terrestrial piling machine operating from land. The BLF will be used to import Abnormal Indivisible Loads (AILs) and other containerised marine freight during SZC's Construction Phase and occasional AILs during the operation phase. During the station's Construction Phase, a subtidal concrete berthing mattress will be used for barges to land on – this removes the need for a grounding pocket and reduces maintenance dredging. It is intended that the berthing platform is installed at the beginning of each April – October campaign period and removed after each campaign. Some light disturbance dredging may be occasionally required to remove sand accumulating on the berthing platform. The berthing mattress will be removed at the end of the construction period. During the operation phase, AIL maintenance deliveries are scheduled for 3–4 weeks (notwithstanding unexpected poor weather) once every 5-10 years (approximately). A grounding pocket will be dredged to allow barge docking rather than installing a concrete mattress, owing to the short duration and infrequent use of the BLF. When the BLF is in use (during the station's construction and operation phases), a plough dredger will be used to dredge the crest of the outer longshore bar for navigational access. Barges will transit over the nearshore bars to the end of the BLF jetty at high tide and will become grounded as the tide falls; offloading is expected to be completed within one tidal cycle. The BLF layout, scale and appearance details are provided in the submitted drawings, with SZC-SZ0100-XX-000-DRW-100411 depicting the layout plan sections during construction, and with SZC-SZ0100-XX-000-DRW-100412 depicting layout plan sections with the upper deck removed (i.e. prior to operation), and with the general arrangement in SZC-SZ0100-XX-000-DRW-100418.
  
- Temporary marine bulk import facility (TMBIF) - The TMBIF is intended to reduce the amount of construction material that will otherwise need to be delivered by land. It will be used predominantly for the delivery of bulk construction materials, such as aggregate, however other types of material may also be imported through the TMBIF, such as marine tunnel segments for marine works. The TMBIF will be in operation for approximately eight years and will be approximately 165m south of the BLF. It will be approximately 505m in length and 12m in width for the main pier. An enlarged unloading area will form a jetty head with dimensions of up to approximately 62m by 38m. A single berth (for a single vessel) is intended at its seaward end. A conveyor will be installed along the length of the TMBIF deck and will be the primary method of unloading material. The conveyor will be covered and follow the deck to the HCDF (once constructed) where it will continue into the secure construction area. It is assumed that the TMBIF will serve 120m long vessels typically delivering up to approximately 4,500 tonnes of cargo per delivery. On that basis it is anticipated there will be approximately 400 deliveries between April and October (inclusive) and up to approximately 200 additional deliveries for the remainder of the year, for each year of TMBIF use. The TMBIF will extend seaward of the outer longshore sand bar to the -6.5m bathymetric contour. As such, there will be no requirements for dredging because vessels could berth alongside with sufficient under-keel clearance. Approximately 114 piles will be required to construct the TMBIF, of which approximately 12 will be located landward of MHWS. They will each be a maximum of approximately 1.2m in diameter, except for two berthing dolphins and two mooring dolphins (each approximately 2.5m in diameter). Six raking piles are assumed at the seaward end of the unloading platform. Cross braces

will be required between some of the piles for stability. Spacing between piles will be no less than 10m on the TMBIF jetty and no less than 12m on the unloading platform, with the exception of where the dolphins, raking piles and pier adjoin the unloading platform. Except for the mooring dolphins, which will be installed using a jack-up barge, the TMBIF will be installed using crane, cantilever frame and piling equipment (including generators), which will be located on the TMBIF during its installation. The TMBIF will be constructed sequentially from the shore and removed in a reversal of that process. The TMBIF layout, scale and appearance details are depicted in drawing SZC-SZ0100-XX-000-DRW-100413 and with the general arrangement in SZC-SZ0100-XX-000-DRW-100418.

The Applicant's submission materials listed in the Summary section above seek to demonstrate that the proposed marine infrastructure is in general accordance with the design principles set out in Chapter 5 of the Main Development Site Design and Access Statement as well as in accordance with the 'Main Development Site Operational Parameter Plan – Operational Platform' (SZC-SZC100-XX-000-DRW-100043); and include a monitoring and adaptive sea defence plan that sets out the periodic monitoring proposals for the sea defence features, their effects on coastal processes and the trigger point for when the crest height of the sea defence would need to be increased to 16.9m (AOD).

The level of detail provided by the Applicant in relation to the layout, scale and external appearance of the proposed marine infrastructure associated with the Sizewell C project is considered acceptable by ESC under the discharge of Requirement 19 established in the Sizewell C DCO granted by the Secretary of State for Business, Energy, and Industrial Strategy in July 2022.

### **Consideration of matters raised during the consultation for Requirement 19**

The following section provides a detailed summary on matters raised during the Requirement 19 consultation, with reference being made to Requirement 12 CPMMP (DC/23/2660/DRR) where necessary due to the overlap between the two discharge applications. This section of the report focusses on ESC's consideration of the Main development site: Marine infrastructure and its compliance with the requirements set out in Requirement 19 of the DCO, factoring in all responses received during the consultation process.

Questions and matters requiring clarification have been raised with the Applicant as part of this process, being summarised below together with a commentary on ESC's final position on each of the points raised. Any matters raised (either by ESC, statutory consultees, or originating from other representations received) which did not result in any changes being implemented are covered separately within Appendix A to this report.

ESC has worked closely with the Applicant and statutory consultees throughout the consultation process whilst considering all other responses received to ensure all matters raised are sufficiently addressed to the satisfaction of ESC as discharging authority.

ESC's correspondence with the Applicant on queries arising from the original Marine Infrastructure Coastal Defences Design Report resulted in amendments which were submitted in an updated Marine Infrastructure Coastal Defences Design Report Revision 5.0 (January 2024).

### Summary of matters raised resulting in changes to the submission materials and/or clarification by the Applicant:

#### **1. ESC**

- 1.1. SCDF profile definition and basis for design >>> The 'Design for Approval' should include a well-defined proposal for the profile to be used to establish and replenish the SCDF. ESC noted that the information submitted by SZC on 23 October in the Design Approval package was not sufficient. The assumptions made on the SCDF profile in the calculation of volumes used in report TR544 (SZC\_Bk9\_9.12 ( C ) Preliminary Design and Maintenance Requirements for the Sizewell C Defence Feature.[\[REP7-101\]](#)) to assess the viability of the SCDF in both original and Adaptive SCDF profiles, appears to be the most current and accurate design information. This should be added to the submitted Design Report and used to amend associated drawings. Consultation with the MMO

confirmed their agreement, stating that the *'Mean Sea Level (MSL) should be replaced by a fixed line in space, approximating the location of MSL at the time, thus reinstating the same SCDF each time it is required (noting that it will be naturally reprofiled on each occasion)'*. ESC acknowledged that the profile definition may change before SCDF construction which would be the subject of a re-submission for Requirement 19 requiring approval by ESC. Text from report TR544 has been provided within Section 3.10.9 of Design Report v4 providing the required information in detail for the main frontage, and notes that the SCDF profile may change under detailed design to follow. This acknowledges the potential for a design change that ESC will need to approve under Section 3.1.5. No additional information was provided on how the SCDF profile will be defined at the critical southern end. ESC will ensure the same principles outlined for the main frontage will be applied here. This matter has therefore been resolved and closed to ESC's satisfaction.

- 1.2. SCDF profile and correction of plan position of SCDF seaward extent >>> Based upon the SCDF profile assumption described in TR544, the seaward extent of the SCDF shown on drawing SZC-SZ0100-XX-000-DRW-100414 is inaccurate and should be at the MSL contour not the Mean High-Water Spring (MHWS) contour. This drawing and other extracts from it that appear in the Design Report should be amended. Consultation with the MMO confirmed their agreement. Note that extension of the SCDF extent to below the Mean High-Water mark is significant in the context of ESC / MMO jurisdiction. The MMO advised that *'using the MHWS contour would mean that the SCDF would almost entirely be within the jurisdiction of ESC, whereas to MSL takes it into both MMO and ESC jurisdiction. However, the profile is effectively controlled by the location and height of the crest and a majority of the slope will be above Mean High Water, therefore predominantly in the jurisdiction of ESC. On this basis, the pragmatic approach would be for ESC to be the lead consultee, corroborated by MMO'*. The Applicant added text in Section 3.10.9 of Design Report V4 and amended drawings reference the seaward extent defined as per TR544 as the approximate 0m ODN contour from the 2017 bathymetry. Amendments to drawings are limited to the addition of SCDF slope definition text on SZC-SZ0100-XX-000-DRW-100415 only. The SCDF seaward extent on plan SZC-SZ0100-XX-000-DRW-100414 has not been amended. ESC is satisfied that the text in 3.10.9 provides sufficient clarity of intent. This matter has therefore been resolved and closed to ESC's satisfaction.
- 1.3. SCDF profile >>> Profiles on other drawings appear to display the SCDF with a constant slope that intersects with the prevailing shoreline in variable positions in relation to tidal contours. It is acknowledged this is a reasonable representation of the design intent. In order to explain the inconsistency with information on drawing SZC-SZ0100-XX-000-DRW-100414, those drawings should have a note added referring the reader to new text to be added to the Design Report required by item 1.1 above. Consultation with the MMO confirmed their agreement. The Applicant amended Design Report V4 and associated drawings to include note from TR544 on SCDF variable front slope, with SCDF slope definition text added to drawing SZC-SZ0100-XX-000-DRW-100415. This matter has therefore been resolved and closed to ESC's satisfaction.
- 1.4. SCDF profile in the Adaptive condition >>> In the HCDF Adaptive condition, the SCDF will retain its original form and be moved up to ~17m seaward, dependent upon the depth to which the HCDF toe is required to extend to. ESC felt text should be added to the Design Report to explain the design logic used to date in SCDF viability assessments undertaken (TR544) to locate the seaward extent of the SCDF. Reference to this new text should also be added to the drawings that include illustrations of an Adaptive SCDF profile. Consultation with the MMO confirmed their agreement. Text has now been included within Section 4.4.4 of Design Report v4 stating that if an Adaptive Design is required, an options study would assess a best design solution for the SCDF at that time. The illustrated SCDF profile to seaward of an Adapted HCDF profile, as shown on the proposal

drawing SZC-SZ0100-XX-000-DRW-100416, must therefore be regarded as potentially viable but subject to change. As noted earlier, ESC would need to approve any design changes as set out within Section 3.1.5 of Design Report v4. No changes have been made to drawing SZC-SZ0100-XX-000-DRW-100416 Adaptive Profile. This matter has therefore been resolved and closed to ESC's satisfaction.

1.5. Removal of HCDF southern splay by providing a direct tie in to the SZB sea defence >>> ESC welcomes the SZC Co. offer (made in feedback to ESC comments on the Req. 19 pre-app consultation) to pursue with SZB the option to change the current alignment of the HCDF at the south end. This would provide a direct tie in with the SZB defence instead of the current overlap with seaward splay. ESC requested that text be added to Section 3.1.2 *Minimising Seaward Extent* of the Design Report to record the SZC intent to pursue this action. ESC acknowledges that this outcome requires the agreement of SZB, which is beyond the control of SZC Co., and that the default position is to continue with the current defence splay / overlap arrangement. New text was therefore added in Sections 3.6.3 and 3.6.4 of the Design Report v4 as requested. This matter has therefore been resolved and closed to ESC's satisfaction. This is a significant matter for ESC, and we therefore propose that it appears as a standing MTF agenda item to track progress until the option is either confirmed as viable or is withdrawn. This is an action for ESC and MTF representatives going forward.

1.6. Monitoring and Adaptive Sea Defence Plan Content – Addition of HCDF landscaping removal >>> The SZC Co intent to potentially remove the HCDF soil fill material, which may in the future be necessary to sustain overtopping resilience, is an adaption action of similar status to HCDF crest raising and toe deepening options. ESC felt that text describing this should be added as a new item to the '*Monitoring and Adaptive Sea Defence Plan*' section of the Design Report with a note identifying the potential for this adaptation action also being added to relevant profile drawings. Consultation with the MMO confirmed their agreement.

The implications for HCDF landscaping removal on public access over / along the HCDF should also be clearly stated i.e., will landscape removal include the material that supports the Coastal Path? If so, what mitigation measures will be applied. The Applicant clarified this point by adding text in Section 5.3 of Design Report v4 which sets out that should the removal of landscaping be necessary, the SCDF and PRoW will be maintained. These matters have now been resolved and closed to ESC's satisfaction.

1.7. Monitoring and Adaptive Sea Defence Plan - Addendum in the CPMMP >>> SZC advised that in the absence of a bespoke Monitoring and Adaptive Sea Defence Plan, the means by which this will be done will be captured as an Addendum in the CPMMP. ESC requested that when preparing this Addendum, SZC include an item for actions required to inform decisions on HCDF landscaping removal as described in Item 1.6 above. SZC have now added a CPMMP Addendum to cover these which states in clause 5.3.1 (page 41) that should removal of landscaping become necessary, the SCDF and PRoW will be maintained. This matter has therefore been resolved and closed to ESC's satisfaction.

1.8. Design Life end date change / design changes >>> Section 3.1.2 of the Design Report submitted on 23 October notes the potential for a change to the end of main site decommissioning date from 2140 (to 2120). ESC requested SZC expand this text to clarify if / what changes to the designs submitted to date for Marine structures are under consideration as a consequence of this potential date change. ESC also stated that if design changes are likely, then explain the process and timeline within which they will be advanced. The Applicant amended Sections 3.1.2 and 3.1.3 within the Design Report, with text in 3.1.2 being amended to remove reference to a change in the HCDF

design life to 2120 (being consistent with text in Requirement 12, CPMMP which refers to 2140). This matter has therefore been resolved and closed to ESC's satisfaction.

1.9. Design Report Section 0 and Appendix 0 >>> ESC noted that there are several references to 'Section 0 et seq' and 'Appendix 0' in the original Design Report submission, notably in Section 3.11. ESC requested the Applicant check and correct this as necessary resulting in no amendments being necessary. This matter has therefore been resolved and closed to ESC's satisfaction.

1.10. Approval of further design information >>> There are several references in the Design Report to incomplete and / or pending design information. ESC requested that the Applicant clarify this in the Design Report, and to include text to describe the process by which design information relating to Marine Infrastructure will be submitted for review and approval by ESC, in consultation with MTF members. It was clarified that the text provided in Section 3.1.5 of Design Report v4 protects ESC's interests in this matter, stating '*Any changes made during detailed designs described herein will require a re-submission of this report describing those changes as a variation to Requirement 19. Prior to any such variation, SZC Limited will engage in pre-application consultation with statutory stakeholders via the SZC Marine Technical Forum (MTF)*'. This matter has therefore been resolved and closed to ESC's satisfaction.

## **2. EA – Refer to Appendix A.**

## **3. MMO – Refer to Appendix A.**

## **4. Natural England (NE)**

4.1. NE provided comments on the sourcing of material for SCDF replenishment – ESC's consideration and response on this matter has been covered within the NE section (Item 4.3) for the discharge of Requirement 12 (DC/23/2660/DRR).

4.2. Regarding the abutment of the SCDF and HCDF onto Minsmere to Walberswick Heaths SAC and SSSI, the NE response stated '*We note from the proposal that there is an expectation that shingle vegetation will develop on the SCDF. We believe that this will be difficult to achieve, and this leads us to concerns on the impact the coastal defence features may have on the designated features of the Minsmere to Walberswick Heaths SAC and SSSI where the defence feature abuts on its northern extent. To our knowledge, it has not been possible to artificially sort shingle to re-create the conditions that result from natural sorting by wave action, which is what the specialist plants need to develop. Mechanical movement of the shingle alone will not create the suitable substrate grading required for specialist shingle species to proliferate. If the SCDF functions in accordance with the cited scenario from Pye and Blott (2018) some of the more disturbance tolerant shingle plants may develop but this would take a considerable amount of time and the 'clock' would reset every time there was a period of recharge. We further advise that vegetated shingle colonisation of the SCDF may depend on the profile of the sloped feature and that the project should seek to mimic the natural beach profile where vegetated shingle already occurs to ensure colonisation is possible. We also note that the measures propose reseeding of the SCDF using a natural seedbank to allow recolonisation of the feature. We have concerns that, where the SCDF abuts with the designated site, that care must be taken to ensure that no planted species inconsistent with the SAC and SSSI features are allowed to move onto the designated site. Further to this, if the SCDF becomes dominated by unsuitable species, will this be managed to prevent a negative impact on the designated site?'* ESC acknowledges that the points mentioned in this Item relate to the ecological function associated with the coastal defence features and are not necessarily suitable for discharging via DCO requirement 19. This Item falls under the discharge of DCO Requirement 4



*'Project wide: Terrestrial Ecology Monitoring and Mitigation Plan'* (TEMMP). It is therefore concluded that no further action is necessary for ESC under Requirement 19. This matter has therefore been resolved and closed to ESC's satisfaction.

**5. Mr. Mike Taylor – Refer to Appendix A.**

**6. Mr. Nick Scarr – Refer to Appendix A.**

**7. Suffolk County Council PRoW**

Note: In terms of Flood and Water Management, SCC as the LLFA had no comments to make.

- 7.1. In terms of Public Rights of Way, SCC noted that *'the permanent alignment of the PRoW (E-363/021/0) is linked to the design of the hard coastal defence feature. The Access & Rights of Way Plans and Rights of Way Strategy (REP10-37) state that the precise alignment of the permanent footpath will accord with the layout and scale details of the hard coastal defence feature, and that a PRoW implementation Plan is required before the new permanent alignment can be created (Requirement 10). The PRoW Implementation Plan will also apply to both the temporary and permanent alignments (Rights of Way Strategy paragraph 3.2.5 Pins EN010012). Therefore, SCC looks forward to working with SZC Ltd on the PRoW implementation Plan for both the temporary and permanent alignments and hopes that this will address concerns regarding: Surfacing of the temporary PRoW seaward of the temporary HCDF; Surfacing of the PRoW on its permanent alignment on the HCDF; Ensuring the interface between the PRoW and the BLF remains level for users (i.e., that the hardstanding doesn't create a step in the PRoW); The location and legally defined width of the PRoW for recording on the Definitive Map and Statement - As per Article 19, the public footpath cannot be temporarily closed until the alternative route is open for use and completed to the reasonable satisfaction of SCC; this will rely on the production and approval of the PRoW Implementation plan'*. ESC sought comment on these matters from the Applicant, specifically on the links between actions under the PRoW Implementation Plan and design information to be submitted under Requirement 19. The Applicant advised that *'We note the comment regarding links between the Sea Defence Design Report and Requirement 10 (PRoW Implementation Plan). Any proposed closure of footpaths or PRoW relating to construction or maintenance of the HCDF/SCDF need to adhere to the PRoW implementation plan once approved'*. ESC conclude that no further action is necessary under the discharge of Requirement 19, being more applicable to the discharge of DCO Requirement 10 *'Project wide: Public rights of way'*. This matter has therefore been resolved and closed to ESC's satisfaction.
- 7.2. SCC stated that *'all the drawings solely refer to the coast path, but they should also show the current and proposed alignment of the publicly maintainable highway along the beach-E-363/021/0 (FP21); this permanent alignment will become the new legal alignment of the PRoW to be recorded on the Definitive Map. The alignment for the King Charles III England Coast Path was approved by the Secretary of State in June 2022 and is currently being established on the ground by SCC. Reference to the PRoW in this response also includes the King Charles III England Coast Path'*. ESC supports this suggested drawing amendment and sought comment from the Applicant. SZC Co. confirmed that they have now commenced discussions with the SCC PRoW Officer with regards to the temporary diversion route of the coastal path which will be in place for the duration on the construction works. They advised that *'these works will be subject to agreement through Requirement 10 (PRoW Implementation Plan), which will need to be submitted to and approved by SCC. Our proposed approach, which we have discussed with SCC, would be that initially, we will be discharging Requirement 10 partially for the temporary diversion route and then at a later more appropriate time go back and resubmit Requirement 10 for the permanent alignment of the coast path. We are meeting on site with SCC on the 4th January 2024 to walk along the*

*path and agree the temporary diversion route, which we anticipate will need to be in place by Q3 2024. We suggest that the drawings are not updated at this time, prior to that agreement, such that multiple Requirements do not need to be updated'. ESC considers the SZC Co. response to be reasonable and acceptable and agrees that no drawing amendments are justified at this time in response to the matters raised in this Item. This matter has therefore been resolved and closed to ESC's satisfaction.*

7.3. SCC advised that they *'would prefer to see the permanent PRoW located on the crest of the permanent sea defence as this would provide the future proofing against threats which might compromise the public highway and create a liability and expense for SCC. Storm Babet illustrates the dynamic nature of the beach with the beach level being reduced overnight and the current low dune/vegetated shingle strip reduced in width. Although this is not the proposal, it is noted that the publicly accessible coastal margin will extend up to the SZC security fence allowing for an informal footpath along the crest, and therefore the design should ensure that there is safe and suitable access at the north and south end of the defence to connect to the ProW and to avoid the creation of desire lines which might compromise the landscaping. It is unclear how this access will be accommodated at the north end of the defence'. ESC sought comment on this matter from the Applicant who subsequently advised that 'While SZC Ltd acknowledges the risk described by SCC, it resists the suggestion that the designated PRoW should be on the crest of the HCDF. The design is sympathetic to the risk highlighted and will allow members of the public to access the crest "informally" should there be a need (e.g. for safety reasons as suggested). But Sizewell C is a licensed nuclear installation and therefore requires, and will force, very strict security measures. It is not appropriate to have a "designated" PRoW on the crest of the HCDF as this would encourage members of the public to routinely use a route offering elevated views of the power station. No change to report'. ESC has considered the Applicant's response to the matters raised in this Item and note that the current PRoW location is consistent with the DCO approval. The Applicant has given an undertaking to maintain the PRoW in its current (low level) position therefore ESC accepts the Applicant's position regarding the designated PRoW location on the HCDF slope. However, ESC notes that the Applicant's response does not include SCC's question regarding arrangements for 'informal' access to crest at N and S ends of the HCDF. ESC suggests this be resolved by SCC and SZC Co. at the appropriate time under the discharge of DCO Requirement 10. This matter has therefore been resolved and closed to ESC's satisfaction.*

7.4. In reference to SCDF and beach maintenance in Section 3.10.11 of the original Design Report submission, SCC notes *'the commitment to recharge the SCDF to maintain a protective beach between the HCDF and the sea. The SCDF also protects the recreational corridor and the PRoW. As SZC has opposed all requests by SCC to locate the PRoW on the top of the sea defence, then it suggests that the trigger for any remedial work should also take account of the vulnerability of the PRoW and its users'. ESC supports this request by SCC and sought comment from the Applicant. SZC Co. subsequently advised that 'Section 3.10.20 has been amended to note that PROW is within VBuffer section of SCDH i.e. the trigger for SCDF recharge is reached prior to erosion of the PROW'. ESC noted that the SCC question is more relevant to the preservation of the SCDF design profile at (and landward) of the crest than it is to volume changes. ESC therefore sought additional confirmation from the Applicant in order to confirm a commitment to maintain the part of the SCDF that forms the PRoW platform, and that this obligation takes priority over any volume-based assessment of need that may not trigger intervention when the PRoW platform is lost. The Applicant responded advising that 'SZC Ltd does not see an obvious impact pathway for the scenario suggested. We suggest it plausible that a big storm, with surge, could breach the SCDF crest and push sediment over the PRoW, and/or subsequently erode it, in such a way that the PRoW is not safe to use without the event actually triggering beach volume. Although plausible we feel this is very unlikely. However, if the SCDF crest were to be breached such that the PRoW was unusable, SZC Ltd would reprofile the crest and restore the PRoW – the crest would need to be repaired as a matter of course for the SCDF to meet its flood defence purpose'. ESC considers the Applicant's response to be reasonable and acceptable and welcomes the amended text in Design Report v4. This matter has therefore been resolved and closed to ESC's satisfaction.*

- 7.5. SCC stated that *'DRW 100414 – Permanent coastal defence feature - The detailed design will need to clarify how the newly aligned permanent PRoW will transition from the permanent HCDF at 5.2mOD onto the existing lower land; at the northern mound and from the roundhead onto the existing SZB foreshore in the south'*. ESC sought clarification on this matter from the Applicant, asking if this was a matter for a later Design action or for agreement through Requirement 10 (PRoW Implementation Plan). The Applicant replied *'these works will be subject to agreement through Req 10 (PRoW Implementation Plan), which will need to be submitted to and approved by SCC. Our proposed approach, which we have discussed with SCC would be that initially, we will be discharging Req 10 partially for the temporary diversion route and then at a later more appropriate time go back and resubmit Req 10 for the permanent alignment of the coast path.'* ESC accepted this response. In addition, SCC sought clarification as to *'why the recreational corridor (described as footpath) varies from between 4m – 9m; note that SCC will expect a legally defined public footpath including width (2m is the normal accepted width for a footpath diverted due to development) - Clarify whether the varying depth of fill/landscaping will have any impact on the long term durability of the footpath'*. ESC supports these requests and sought comment from the Applicant who subsequently advised that *'The width of the footpath varies due to depth of landscape fill on front face of HCDF to reduce the visual impact of the HCDF although a minimum width of 4m will be maintained to accommodate the footpath. Removal of / modification of landscape fill will not impact on footpath which will be maintained (DR v4 part 5.3). The drawings have been amended to confirm footpath as 4m wide'*. ESC considers the Applicant's response to be reasonable and acceptable. This matter has therefore been resolved and closed to ESC's satisfaction. Note: ESC also sought clarification of how the coastal path will be affected (maintained / relocated) if removal of the landscaping fill from the HCDF becomes necessary to sustain flood resilience performance of the HCDF. There is now text in Section 5.3 of Design Report v4 providing this information which acknowledges that should removal of landscaping be necessary, the SCDF and PRoW will be maintained. This matter has therefore also been resolved and closed to ESC's satisfaction.
- 7.6. SCC stated that *'DRW 100416 – Permanent coastal defence feature - adaptive design - This design places the recreational corridor/footpath further east creating additional vulnerability to the PRoW and the design should consider re-aligning the PRoW on the crest'*. ESC sought comment on this matter from the Applicant who subsequently advised that *'Section 3.11.3 has been amended. While SZC Ltd acknowledges the risk described by SCC, it resists the suggestion that the designated PRoW should be on the crest of the HCDF. The design is sympathetic to the risk highlighted and will allow members of the public to access the crest "informally" should there be a need (e.g. for safety reasons as suggested). But Sizewell C is a licensed nuclear installation and therefore requires, and will force, very strict security measures. It is not appropriate to have a "designated" PRoW on the crest of the HCDF as this would encourage members of the public to routinely use a route offering elevated views of the power station as this poses a risk to station security'*. Based upon information in the Design Report, ESC notes that an Adaptive HCDF profile is a contingency that may be required many years into the future. If / when it is required, the environmental conditions that prevail at that time will inform decisions on how the PRoW should be modified. ESC believes that this risk cannot be resolved at this time under the discharge of DCO Requirement 19. This matter has therefore been resolved and closed to ESC's satisfaction.
- 7.7. SCC stated *'Temporary Hard Coast Defence Feature DRW 100419 & Para 4.2 - This will obstruct the existing PRoW and a temporary alternative route seaward of the sheet pile wall is proposed. SCC require clarification as to how the PRoW or temporary alternative access will be kept open/managed during the installation of the temporary sea defence, particularly as construction will be from the south and affecting PRoW outside of the order limits'*. The Applicant subsequently advised that *'Installation of the temporary footpath diversion and associated security fencing will be completed prior to the commencement of the Temporary Sea Defence in accordance with the PRoW implementation Plan (Requirement 10) once approved'*. ESC agrees that this matter be resolved by SCC and SZC under

Requirement 10 with no further action under Requirement 19. This matter has therefore been resolved and closed to ESC's satisfaction.

- 7.8. SCC advised that '*Illustration 'Section @ F-F Prior to Start of Construction' - The position of the PRoW is incorrectly marked. The PRoW is adjacent to the existing fence (See extract from the Definitive Map below), not 45m to the east as shown on this drawing and therefore gives a false impression of the location of the design and should be corrected*'. The Applicant advised that the '*Location of existing PROW has been realigned on Section F-F existing site*'. ESC accepts that Drawing SZC-SZ0100-XX-000-DRW-100419 has been amended. This matter has therefore been resolved and closed to ESC's satisfaction.
- 7.9. SCC stated '*Section @F -F - During construction of the initial sea defence and during construction of the MDS - The alternative access area starts 36m and 25m respectively to the east of the current PRoW alignment on these two cross sections with the allocated footpath strip starting at approximately 45m to the east of current PRoW. - The proposed design for the temporary alignment for the footpath will sit at the existing ground levels for 2022 which in the location of F to F appear to be between 2.88 and 3.38mOD (DRW 100415), unlike the proposed levels for the permanent alignment which will be raised to 5.2mOD. SCC also notes that scour protection is proposed at the toe of the temporary HCDF, presumably as protection from tidal action. - SCC is therefore concerned that the proposed design for the temporary alignment of the PRoW in front of the THCDF will place path users closer to the MHWS and as the ground levels are intended to remain as per 2022, will leave them vulnerable to high tide events, effectively squeezed between the sheet piling wall and the sea. SCC seeks clarification as to: 1. The measures that are being put in place to ensure the safety of users of the temporary footpath; and 2. What surfacing is proposed for the temporary footpath? Ground reinforcement grids could be an option to stabilise the shingle to create a useable width as used further south in front of SZB*'.

To answer these questions, ESC sought clarification from the Applicant. Regarding Question 1 above, the Applicant advised that the PRoW will be realigned prior to the installation of site safety fencing which will act as a barrier between the public and any construction activities. The exact alignment of both the fencing and the PRoW diversion are currently being agreed as part of DCO Requirement 10, however, this fencing will remain in place until the completion of construction with both being installed prior to any construction works commencing. The temporary realigned PRoW will be inspected regularly and maintained by SZC Ltd, to be captured under Requirement 10. This matter has therefore been resolved and closed to ESC's satisfaction.

Regarding Question 2 above, the Applicant advised that as discussed with SCC on 04 January during a site visit with SZC Ltd and SCC, ground reinforcement grids will be used to create a stable but temporary surface, of suitable width, to demarcate the temporary PRoW and provide a footpath. As suggested by SCC, it is proposed that these reinforcement grids will be the same as, or similar to, the existing grids to the south in front of SZB and this will be confirmed by way of Requirement 10. The temporary footpath will be inspected regularly and maintained by SZC Ltd, again to be captured under Requirement 10. This matter has therefore been resolved and closed to ESC's satisfaction.

## **8. Theberton and Eastbridge Parish Council, Theberton and Eastbridge Action Group on Sizewell C (TEAGS); Minsmere Levels Stakeholders Group (MLSG)**

- 8.1. Mr. Paul Collins submission 28 December 2023 – '*Following the updated plans for DoR19 submitted by Sizewell C, the following is an update to the objection already submitted by Theberton and Eastbridge Parish Council, Minsmere Levels Stakeholders Group and Stop Sizewell C. It would appear that a revised DoR19 proposal has now been submitted suggesting a revised design life of the HCDF to 2140 (still 20 years short of the developer's own expectation for spent fuel remaining on site) and*

*they have also reduced planning parameters regarding flood and overtopping relative to the UK CP18 predictions (in both v3 and v4 of the document) to 84% of RCP 8.5 UKCP18 from 95% (para 3.1.4). We have no confidence in SZC as a developer when they flip-flop so dramatically on the design and design life of the HCDF nor where the confidence comes that the GDF will be capable of accepting EPR spent nuclear fuel by this optimistic date'. Refer to Item 9.28 in reference to ESC comments on the design life and climate change criteria.*

For matters 8.2 – 8.24 raised by Theberton and Eastbridge Parish Council, TEAGS and MLSG, refer to Appendix A.

## **9. TOGETHER AGAINST SIZEWELL C (TASC)**

For matters 9.1 – 9.22 raised by TASC, refer to Appendix A.

9.23 TASC submission 17 November 2023 – *'9.23 Para 5.5.2 states "In the event (unlikely but possible) that the effects of climate change take a more severe trajectory, the permanent sea defence is designed so that its height can be adaptively increased in time to maintain adequate protection to the SZC site over its lifetime..." This statement contradicts other parts of the document that state that the adaptive design would only be made during the design life of the HCDF (to 2120) and not the full lifetime of the project till the mid-late 2100s'. ESC sought clarification on this matter from the Applicant who advised 'Section 3.1 has been amended to remove contradiction on design life'. ESC is therefore satisfied that text in Section 3.1 of the Design Report provides evidence of a reasonable approach to potential HCDF adaptation that is linked to protection of the site from flooding while there are nuclear materials at risk. ESC notes that the ONR, as the approving authority for matters relating to Nuclear Safety, will need to approve all design elements regarding site flood risk. Under Requirement 19, ESC's primary interest is the impact of the development on coastal change. It is also noted that the EA raised no objections to the current design. This matter has therefore been resolved and closed to ESC's satisfaction.*

For matters 9.24 – 9.26 raised by TASC, refer to Appendix A.

9.27 TASC submission 17 November 2023 – *'Lack of consultation - TASC cannot understand why the ONR have not been consulted on this issue given their responsibility for assessing site safety as part of the Nuclear Site Licence application. Indeed, the ONR have advised that there is further work being undertaken by them for the ONR to be satisfied that the proposed sea defences are adequate'.*

*TASC submission 27 November 2023 – 'Further to TASC's submission of 17th November relating to the discharge of Requirement 19, I would like to draw your attention to an email sent 27th November by the Office for Nuclear Regulation (ONR) to TASC - copy included below. This supports concerns TASC raised in our submission of 17th November relating to the safety case for the Sizewell B site being impacted by the proposals included in the application for the discharge of Requirement 19. Given the information supplied by the ONR, TASC believe that East Suffolk Council should consult with both EDF Sizewell B and the ONR regarding the discharge of Requirement 19 as the proposals under consideration have the potential to compromise the safety of Sizewell B'.*

ESC notes that the ONR were not specifically listed within DCO Requirement 19 as a required consultee and understands that the ONR has an independent design review and approval process and that it does not respond as a consultee to the DCO Planning Requirement process. On 11 December 2023, the ONR confirmed this to ESC separately to the consultation for Requirement 19, stating *'we can confirm that we have no need to provide comments through East Suffolk Council's planning consultation process. Please do note that we are engaging with SZC Ltd as it develops the detailed design of the temporary sea defence and EDF Nuclear Operations Ltd (Sizewell B) to ensure Sizewell B remains adequately protected*

from flooding prior to changes to the sea defence being implemented'. ESC also notes any future amendments to the Marine Infrastructure works designs (including any prompted by ONR requirements), will be submitted for approval by ESC in consultation with MTF partners in accordance with Section 3.6.4 of the Design Report. This matter has therefore been resolved and closed to ESC's satisfaction.

9.28 TASC submission 5 January 2024 (as an amendment to TASC submission 1 January 2024) – *'The current proposals represent a material change to the approved Development Consent Order (DCO) - In relation to the protection of spent nuclear fuel stored on site after the plant has stopped operating, TASC believe that it is important to draw ESC's attention to considerations made by the Secretary of State in his Decision Letter (DL) when giving DCO approval to SZC:- DL Para 4.590 "The issues of coastal defences, and the impact of climate change on the modelling for the safety of those defences, were considered by the ExA in section 5.8 and section 5.7 of the ExA Report respectively. The ExA considers [ER 5.20.101] that the coastal defences have been designed so they can be modified if it is necessary to do so, with the monitoring of the sea levels secured through the CPMMP, and this is further reinforced by the obligations required by the NSL regime regulated by the ONR and the permits regulated by the EA. The ExA is persuaded [ER 5.20.102] that the Applicant's conclusions are predicated on the basis that the site will be clear of nuclear material by 2140, the period which has been modelled for coastal defences, and under these circumstances the ExA consider the tests set out in paragraph 2.11.5 of NPS EN-6 [Note 1] would be met.[emphasis added]" DL Para 4.597 states "The ExA concludes [ER 5.20.134] that there is sufficient evidence to reach a conclusion on this matter, but notes that the Secretary of State may wish [ER 5.20.135] to satisfy himself that the safe storage of radioactive waste will be achieved for the lifetime of the project in light of the modelling undertaken on coastal defences. The ExA notes that its conclusions [ER 5.20.133] on this matter are based on the removal of the ISFS by 2140, and that it is under these circumstances that the ExA are of the view that the policy tests in the NPS are met" DL Para 4.598 states "The Secretary of State agrees with the ExA's conclusions on this matter. In reaching this conclusion the Secretary of State has noted the further information provided by the EA with regard to the coastal defence modelling and also notes that the Applicant is required to obtain an NSL" It is clear from the above that the SZC DCO was approved on the basis that the Interim Spent Fuel Store (ISFS) will be removed from the SZC site by 2140'.*

ESC understands that TASC are concerned that the DCO approval was based upon an ISFS decommissioning date of 2140, and the Applicant is now referring to 2160. ESC sought clarification on this matter from the Applicant relating to the inconsistency in the dates and for SZC Co. to demonstrate that the Marine Infrastructure design / adaptation plan is adequate to achieve a design life of at least 2160 under both Requirements 19 and 12. The Applicant advised that *'SZC Ltd is confident that the structures, as well as their monitoring and maintenance plans, are fit for purpose to 2160'*. ESC highlighted to the Applicant that the Decision Letter references provided by TASC above suggest that the Examining Authority's approval is based / conditional upon the removal of the ISFS by 2140. It was also highlighted that TASC conclude that the DCO was approved on this basis and suggest that a change to this date invalidates the DCO approval decision. ESC therefore requested that the Applicant explain why a change in the date of ISFS removal from 2140 to 2160 does not represent a material change to the approved DCO. The Applicant subsequently advised that *'the TASC argument presented here is the same as that making Ground 6 in its Judicial Review case against the SoS. This was dismissed by Mr Justice Holdgate, his main discussion being at paragraphs 175 - 177:*

*"175 - The claimant's ground 6 is a classic example of a failure to read the decision letter fairly and as a whole. It is plain that in DL 4.590 the defendant also relied upon the adaptive nature of the design for the coastal defences, the monitoring of sea levels through the CPMMP and the controls which will be applied by the ONR and the EA through their respective regulatory regimes. That paragraph has to be read in the context of the many passages in the Panel's Report and in the*

*decision letter where those matters were explained and relied upon. The suggestion by the claimant's counsel that the defendant did not rely upon those matters when addressing the future adequacy of coastal defences in relation to the storage of spent fuel is wholly untenable. The point was made clear in relation to the ONR and the nuclear site licence, for example in DL 4.365. The defendant relied, as he was entitled to do, upon the normal assumption that those other regulatory regimes will be operated properly. The defendant's reasoning cannot be treated as irrational or legally inadequate.*

*176 - In addition, Requirement 19 of the development consent requires details of coastal defence features to be submitted and approved by the local planning authority, before construction of those works may commence, which must include a monitoring and adaptive sea defence plan that sets out periodic monitoring proposals and the trigger point for when the crest height of the sea defence would need to be increased to 16.9m above Ordnance Datum.*

*177 - Accordingly, ground 6 must be rejected. In reaching that conclusion, I have not found it necessary to consider the application of s.31(2A) or (3C) and (3D) of the Senior Court Act 1981."*

Having considered this matter carefully, ESC is satisfied that the challenge raised by TASC in this Item is a repeat of that raised in Ground 6 of the Judicial Review case against the SoS which was not accepted by the Judge. ESC therefore regards the matter closed.

*'Para 3.4.2 states 'The Adaptive Design will only be implemented if mean sea level rise exceeds the reasonably foreseeable design value during the operational life of the structures'. This is another material change as the 'operational life' of the plant is currently planned to be 2095, assuming it becomes operational in 2035, much earlier than the 2140 lifetime of the site approved in the SZC DCO. SZC Co's current proposals move the SZC full lifetime timeline to 2165. Therefore, is it now SZC Co's intention to leave the Sizewell site unprotected for the last 70 years of its lifetime, ie the time required to complete decommissioning, spent fuel removal and decommissioning of the ISFS?'*

ESC notes TASC's concern regarding the apparent contradiction between text in 3.4.2 and 3.1.3 on the time frame within which the adaptive design may be deployed (i.e. is this limited to end of Operational life ~2100 or Design life ~2140). This is primarily a Nuclear Safety matter but has implications for coastal processes. ESC sought clarification from the Applicant who advised *'this appears to be a misunderstanding of engineering language as the wording is carefully chosen. The "structure" referred to is the sea defence, not the nuclear power plant. So, the "operational life of the structures" means the period during which the sea defences are providing their safety function. The operational life of the power plant is different and shorter than this, equally, the ISFS operational life is extend beyond that of the nuclear power station. Design life is a target number for durability – and many structures have exceeded their design life but remain operational. Good maintenance and proactive repair can extend operational life beyond design life. A structure does not cease to function at the end of its design life, but it does cease to function at the end of its operational life'*. ESC is satisfied that the Applicant's response demonstrates that this is not a material change. Note this is primarily a Nuclear Safety resilience matter and so any further queries on it should be referred to the ONR. From an ESC Requirement 19 viewpoint, the matter is closed.

*'In Para 3.1.4 SZC Co have reduced the climate change parameters without explanation or justification, this being another significant change to the approved SZC DCO. We assume this change has been implemented to reduce climate change impacts in its modelling – another indication that the SZC site cannot be kept safe for its full lifetime (till at least 2165)'*

ESC sought clarification from the Applicant who advised that *'the change from RCP8.5 mean sea level rise 95%tile adopted at basic design stage to 84%tile at detailed design stage. At basic design stage the design team adopted the most conservative value from RCP8.5 mean sea level rise 95%tile on a precautionary basis in the absence of any site specific advice or agreement with ONR. SZC has since adopted RCP8.5 84%tile as part of the "Site Data Summary Report", which is a key document for the over-arching safety case and has been submitted to the ONR as part of its ongoing regulatory assessment of the project as agreed with ONR. For the reasonably foreseeable climate change scenario, the allowances for relative mean sea level rise at SZC presented as part of the site challenge in SDSR Revision 4 were taken from UKCP18 [ ] RCP8.5 at the 95th centile confidence level. On further review for SDSR Revision 5, this is considered unnecessarily conservative, while recognising that the upper end of potential sea level rise over the next 100 to 150 years is difficult to predict and some of the main contributors to such scenarios (e.g. greater land ice mass loss from Antarctica and Greenland) are not fully represented in the UKCP18 modelling. It is appropriate to treat sea level rise as a special case for the selection of confidence level from UKCP18. This conforms to the approach set out in Reference [ ] on the application of UKCP18 for the SZC project which proposes RCP8.5 at 50th centile as the general case for different hazards/phenomena together with the option to apply other confidence levels on a case by case basis. On balance, it is considered appropriate and sufficient to apply allowances for reasonably foreseeable relative mean sea level rise from UKCP18 RCP8.5 at the 84th centile confidence level. It is worth noting that the design has not been altered as a result, the design remains the same as at examination'*.

ESC is satisfied by the Applicant's explanation. In summary, a review by the SZC design team has resulted in the submission of a request to ONR to change RCP8.5 mean sea level rise forecast value from 95% to 84%. This request is with ONR for consideration and so is yet to be confirmed. This is a flood resilience matter that will be decided by ONR and not by ESC under Requirement 19.

*'These proposals do not accord with the revised CPMMP submitted on 14th December 2023 - TASC note that the Coastal Processes Monitoring and Mitigation Plan (CPMMP) proposed on 14th December 2023 (under ref DC/23/2660/DRR) advises that it has a design life to 2140 which is at odds with the 2165 date referred to above derived from this DoR19 application document'*.

ESC notes within CPMMP Revision 3.0 Section 1.1, it is stated that *'The CPMMP is an adaptive monitoring plan that is designed to be viable until at least 2140 and must be implemented as approved by the Discharging Authorities'*. A footnote states *'2140 is the consented estimate for the end of the site's design life'*. This text does not limit the life of the CPMMP to 2140, however if under Design Report Revision 4.0 Section 3.1.3 - the default design life is stated as 2160, therefore the CPMMP text should be consistent. ESC sought the view of the Applicant who advised *'we can amend the date to say 2160 if totally required – but given we will need to update over time we can make a commitment to do at the next revision. We are required under law (DCO and DML) to implement the CPMMP until such time as the Cessation Report is approved'*. ESC considers it to be necessary for there to be a consistent approach applied across the Requirement 12 and 19 documents regarding the design life. The Applicant therefore agreed to amend the CPMMP accordingly (refer to Item 1.3 above to add context relevant to this change). The Applicant submitted CPMMP Revision 4.0 which includes the amended text.

*'Table 3.1 shows that the Reasonably Foreseeable Design relies on protection from offshore banks. TASC do not consider this is a reasonable assumption insofar as it is unreasonably over optimistic given the MMO have advised that the Sizewell-Dunwich Bank has already lost 2 metres over a recent 10 year period'*. ESC notes that The Credible Maximum (CM) scenario, in the same table, includes for lowered sand banks.



ESC notes there is evidence that SZC SCDF resilience studies have used extremely conservative criteria. ESC sought clarification from the Applicant to comment on how the sea defence design has considered the potential for loss of the Dunwich and Sizewell sand banks. The Applicant advised *'Cefas advises that there have been quite a lot of changes in the < 0.2 m category for Sizewell Bank, so we wonder whether there has been a misinterpretation and perhaps the decimal point has been moved accidentally? Lowering on Dunwich Bank was commonly between 0.5 and 1.5 m over the 2007-2017 period (se BEEMS TR500). Regardless, we do not feel it is relevant because we have an SCDF that will be maintained, and we know that the bank changes slowly'*.

ESC subsequently requested confirmation that the Applicant considered the risk of bank lowering in the design process and that references are provided to reports where it has been applied. The Applicant agreed, noting *'we have answered this several times already – the Flood Risk Assessment considered a scenario without any bank at all... SZC provided a response to Round 3 of the Examiners Questions during the public examination ([Link](#)) that answers this question (see below, relevant section in bold). Even though there is no identified pathway for a “no bank” scenario to arise, in its assessments for SCDF stability and FRA, SZC Ltd has accounted for such a scenario lowering by removing the Sizewell Bank completely from the assessments. This envelopes any lowering scenario so described.*

ExQu33 CG 3.4

*"i .....There is no identified pathway for SZC to impact the Dunwich Bank [APP-311], so no assessment is deemed necessary. Changes to the geomorphology of the banks is most likely at Dunwich Bank, which is historically variable and not afforded the stable tidal and sediment circulation patterns that give rise to the stability observed at Sizewell Bank. A significant reduction in Dunwich Bank could re-initiate the former severe phase of cliff erosion near Dunwich (which has largely been stable since 1925) and increase the supply of sediment to the southern Sizewell Bay, which historically resulted in shoreline accretion – such an event would reduce the maintenance requirements of the SCDF owing to increased natural sediment supply. The negative implications of natural changes in the offshore banks have been considered in BEEMS Technical Report TR544 [REP7-101] through the application of several layers of conservative calculations into the modelling and viability of the SCDF to account for uncertainty – this includes the modelling approach in BEEMS Technical Report TR545 [REP7-045] that excludes the bank, which is equivalent to a no-bank scenario. As the modelling without the bank demonstrates SCDF viability, offshore changes only influence (increase or decrease) the maintenance requirement for the SCDF, but do not affect viability."*

*ii As discussed in point (i) above, the safety of Sizewell C does not rely on the stability of offshore geomorphology. SZC Co. tested the extreme conditions using a range of bank configurations (bank in situ, bank eroded and bank fully removed) to determine which was the worst in terms of the flood risk to the Project, i.e. which would result in the greatest risk of overtopping. This is discussed in Section 5.3 of Appendix A of the Coastal Modelling Report (Appendix 1 of the MDS FRA [APP-094] (epage 67)), where the assessment concluded that the Baseline scenario, i.e. with the Sizewell - Dunwich bank in situ, resulted in more conservative (i.e. worst case) nearshore wave conditions than with its removal and subsequently the assessment assumed a greater risk of overtopping. As such, the worst case scenario was adopted in the MDS FRA and the results presented in Table 4.1 of the MDS FRA Addendum [AS-157] (epage 55) show that for the basis of design event (1 in 10,000-year) with climate change allowances, the HCDF would protect the site keeping the overtopping rates within a tolerable level."*

ESC considers the Applicant's response to be reasonable and justified and it is therefore accepted as evidence of appropriate consideration by SZC Co. of the significance of a lowered (or no Sizewell-Dunwich sandbank) scenario.

For matters 9.29 – 9.51 raised by TASC, refer to Appendix A.

9.52 TASC submission 12 January 2024 – *‘Please accept this email as a submission for the planning portal. TASC note that the applicant's updated Coastal Design document submitted on 14th December 2023 states in the final sentence of para 3.1.3 that the Interim Spent Fuel Store (ISFS) 'already lies to the east of the site'. TASC consider that this suggests another material change to the approved DCO - throughout the DCO, and since, the ISFS has always been shown as being sited in the south west corner of the site. TASC would like East Suffolk Council to seek clarification from the applicant as to whether this is another error or another material change to the DCO, particularly as the new positioning of the ISFS in the latest proposals would place the ISFS in a position far more vulnerable to the impacts of climate change, than the siting that was agreed in the DCO’.* ESC sought clarification from the Applicant who advised that this was a typo in the report, the ISFS is to the west of the site, and this will be corrected in the text. ESC notes that ‘East’ was amended to ‘West’ in Design Report Revision 5.0.

## **10. RSPB**

10.1. The RSPB advised *‘Interface with boundary with RSPB Minsmere and the Minsmere-Walberswick SPA/SAC/SSSI and Ramsar Site - We believe that the detail provided in the design report is insufficient to understand how the interface between the SZC development and RSPB Minsmere will be managed, avoiding impacts on land in the RSPB’s ownership and the Minsmere-Walberswick SPA/SAC/SSSI and Ramsar Site. We are disappointed to see that the relationship with designated habitat (Minsmere – Walberswick SPA/SAC/SSSI/Ramsar site) and the Minsmere RSPB Reserve has not been identified explicitly as a constraint and interface that needs to be taken into consideration during design in section 3.4.5. We do not believe these concerns are adequately addressed in item 3.7’.* ESC notes that Section 3.4.5 of the Design Report mentions the Northern Mound but not in great detail potentially highlighting the absence of an impact assessment to inform the design. ESC sought clarification from the Applicant who confirmed that *‘Section 3.4.5. Minsmere has certainly been considered as an interface and “Minsmere RSPB Reserve and Minsmere-Walberswick SPA/SAC/SSSI” has been added to Section 3.4.5 to reflect this. Interactions with the RSPB land boundary are also laid out in in Section 3.7’.* ESC considers that no further action is required under Requirement 19. This matter has therefore been resolved and addressed to ESC’s satisfaction.

10.2. Refer to Appendix A.

10.3. The RSPB advised *‘Drawing Ref: SZC-SZ0100-XX-000-DRW-100417 shows Northern Mound with indication that land levels are anticipated to change on RSPB land. There appears to be no key to the specific drawing, but elsewhere it is suggested that the green line represents current land level and the pink line represents post construction land level. The drawing shows the land level (pink line) on the RSPB land as lower post construction, but this is confusing as the design detail appears to show a different land level that terminates at the security fence with no indication of how this ground level keys into the DCO red line boundary and RSPB boundary’.* ESC sought clarification on this matter from the Applicant who advised that *‘the issue highlighted is an artefact due to the line on the drawing being deliberately thickened to emphasise / make clear the location of the Red Line Boundary at this scale. All consented works must be within the Red Line Boundary which does not extend onto RSBP land. There is no proposal to change levels on RSPB land’.* ESC notes that Drawing Ref: SZC-SZ0100-XX-000-DRW-100417 shows two existing ground profile lines dated 2019 and 2022 and includes a legend or key. ESC did not find a reference to anticipated level changes on RSPB land in this drawing. ESC therefore consider that no further action is required under Requirement 19. This matter has therefore been resolved and addressed to ESC’s satisfaction.

10.4. The RSPB advised *‘Drawing SZC-SZ0100-XX-000-DRW-100414 and fig 3-10 indicating that the boundary of the haul road feature will run against the red line and RSPB boundary for a distance either*

*side of the cross section illustrated, leaving continued concern that detail design will not avoid impacts on land in our ownership or the designated SPA, SAC, SSSI and Ramsar site'. ESC noted this observation and sought clarification from the Applicant who advised 'The toe of the SCDF transitions into the HCDF toe prior to the "pinch point" with RSPB land / Red line Boundary. The green shown to the west of this point is landscape fill over the toe of the HCDF to bring up the post construction levels to the level in the adjacent RSPB land. Section A-A on drawing 417 was amended to make this clearer'. This matter has therefore been resolved and addressed to ESC's satisfaction.*

10.5. The RSPB advised '*Fig 3.8 shows the SCDF 'blended into the SZB shoreline profile'. This is in contrast to the illustrated profile at the northern end (eg drawing SZC-SZ0100-XX-000-DRW-100414 and fig 3.14) where the SCDF is illustrated as following the profile of the northern mound, curving from a north – south to an east – west orientation. This is explained in 3.10.19 'At its northern extent, immediately beyond the interface with the BLF, the SCDF turns inland and grades into the HCDF as seen in Figure 3-14.' It is not explained how this approach will tie in with the north – south alignment of the natural shoreline that extends into the Minsmere – Walberswick SPA/SAC/SSSI and Minsmere RSPB Reserve'. ESC agreed that the north-facing SCDF detail on drawing SZC-SZ0100-XX-000-DRW-100414 is close to the RSPB boundary and lacking detail, noting this therefore falls within RSPB's general concern at lack of consultation with them by the Applicant on impacts to their land. ESC sought clarification from the Applicant who advised that 'The statement is correct: the realigned coastal path will align with the existing designated footpath at the property boundary' and that 'The SCDF will cut the existing natural shore-line as it turns inland and grades into the HCDF. The exact location of this is to be determined during detailed design, however, is located within SZC land and will be designed to ensure that any tie in or grading between these will not encroach on RSPB land'. This matter has therefore been resolved and addressed to ESC's satisfaction.*

10.6. The RSPB advised '*3.7.1 identifies that the Public Rights of Way (ProW) (the Suffolk Coast Path) will be redirected up and down the shoreline as necessary to facilitate construction of the permanent and temporary sea defences. The RSPB's expectation is that any redirection will be aligned to the existing designated footpath once it meets the RSPB boundary. Potential impacts of this need to be accounted for in the Recreational Displacement Monitoring and Mitigation Strategy. The RSPB has still not had sight of the methodology for baseline monitoring or any baseline results. We are disappointed by the lack of coordinated approach to this element of the project to date'. ESC notes that this raises similar questions on footpath diversion lines to those in the SCC PRoW response. ESC sought clarification from the Applicant who advised 'Sandlings Walk is outside of the construction fence line and will remain open / untouched during construction. The section of Sandlings Walk within the SZC C Ltd boundary will run along the toe of the HCDF. The precise alignment of this is currently being confirmed as part of Detailed Design but will follow the approximate alignment of the existing path within the SZC property boundary'. ESC is satisfied with the Applicant's response and notes that the issue is more appropriately dealt with under other approval processes e.g. Requirement 10. No further action is required for ESC under Requirement 19. This matter has therefore been resolved and addressed to ESC's satisfaction.*

10.7. The RSPB advised '*Fig 3-10 does not show the existing alignment, nor any proposed realignment of the permissive Sandlings Path once that part of the development is completed. We can therefore not confirm from the information made available to us so far that the present alignment does accommodate the realigned path on land within the 'SZC Limited' area. With the reference in 3.3.5 to the exact arrangements in this area still being subject to detailed design we remain concerned that this is an area of risk'. ESC notes that this concern is similar to those raised by the SCC PRoW team and sought clarification from the Applicant who advised 'There is no intention to access RSPB land to construct the HCDF or road long the SZC/RSPB boundary. The design and intended construction method does not require this. If this understanding were to change in future SZC Ltd would engage bilaterally with RSPB'. ESC is satisfied with the Applicant's response, and as per the previous Item 10.6 above, concludes that the issue is more appropriately dealt with under other approval processes e.g. Requirement 10. No*

further action is required for ESC under Requirement 19. This matter has therefore been resolved and addressed to ESC's satisfaction.

10.8. A more general matter raised by the RSPB stated 'We request that we are consulted on the detailed design as appropriate to seek to alleviate these concerns'. ESC has noted the need for consultation with RSPB on any future detailed design submissions or design changes relating to Requirement 19.

All additional matters raised in representations received during the Requirement 19 consultation period which are not mentioned above have been reviewed and considered by ESC, with a summary of ESC's final position on each being provided in Appendix A to this report. Matters covered in Appendix A were fully considered but did not in ESC's opinion as discharging authority impact upon our ability to discharge Requirement 19, resulting in no changes to the Requirement 19 submission materials. Note that Appendix A also includes some issues that are repeats of those included above.

The following table provides a summary of common questions and themes raised during the consultation period:

<p><b><i>There are errors with scale bars on some submitted technical drawings.</i></b></p> <p>ESC response: Drawings SZC-SZ0100-XX-000-DRW-100413, SZC-SZ0100-XX-000-DRW-100414 and SZC-SZ0100-XX-000-DRW-100418 were amended.</p>
<p><b><i>There has been inadequate consideration of potential consequences for the SZC shoreline from future changes in the Dunwich bank in particular and climate change in general that could affect SZC flood resilience.</i></b></p> <p>ESC response: The DCO process has already considered and accepted the Applicant's approach and conclusions on this matter. The DCO has been approved and the project commenced. The responsibility for assessment of SZC flood resilience lies with ONR and EA. It is also noted that the EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.</p>
<p><b><i>Cross section C-C in drawing SZC-SZ0100-XX-000-DRW-100417 shows the HCDF at the southern end extending further seaward than is shown on the plan in drawing SZC-SZ0100-XX-000-DRW-100414. Which is correct?</i></b></p> <p>ESC response: Drawing SZC-SZ0100-XX-000-DRW-100417 was amended. The position of the HCDF shown on the plan is correct.</p>
<p><b><i>The Requirement 19 submission includes incomplete design information which prevents proper assessment.</i></b></p> <p>ESC response: In the context of Requirement 19, ESC is concerned with those parts of the Marine Infrastructure design that have potential to affect coastal processes. Clause 3.1.5 of the Design Report rv5, obliges SZC to obtain approval for any design changes made during the detailed design process. Any Marine Infrastructure design amendments proposed by the Applicant must therefore be submitted for approval by ESC in consultation with MTF partners.</p>
<p><b><i>The adaptive design of the HCDF/SCDF will lower the toe from 0m O.D. to -1.5m O.D. This will move the HCDF toe seaward by 17m and the SCDF will be more exposed to erosion.</i></b></p> <p>ESC response: If during the development life it is concluded that the HCDF needs to be adapted, then in the adapted HCDF condition, the SCDF will be up to 17m seaward and will require greater effort to maintain it. However, under the terms of Requirement 12 (CPMMP), SZC Co will continue to have a legal obligation to sustain longshore sediment transport pathway.</p>

***The proposed change of design life of the Hard Coastal Defence Feature (HCDF) from 2140 to 2120 requires an updated spent fuel strategy to demonstrate that the SZC site can be kept safe for its full lifetime and an application to the Planning Inspectorate as a material change to the SZC DCO.***

ESC response: Management of the flood defence to ensure adequate protection for the spent fuel store are matters for the ONR and EA. It is noted that later versions of the Design Report removed reference of the 2120 date but introduced a Design Life date of 2160. Also refer to Item 9.28 in main body of this report. Additionally, it is noted that the EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

***The design of flood resilience measures for the full perimeter of the site is inadequate and has included information on coastal change that does not take proper account of risk.***

ESC response: These are matters for the ONR and EA. The EA has made no objections to the current design.

***Shoreline change and flood risk modelling needs to take into account the changes in beach volume and erosion of the sacrificial dunes in front of the SZB and SZC frontages over the last couple of years.***

ESC response: Modelling of the SCDF's potential resilience to predicted erosion, carried out in report TR544 Rv 4 (SZC\_Bk9\_9.12(C)) includes consideration of historic worst-case rates of retreat. If actual erosion rates exceed estimates used in studies then this will not change SZC's obligation to maintain the longshore sediment transport pathway.

***There are potential adverse impacts from the SZC works on SZB.***

ESC response: It is a matter for SZB and the ONR to ensure that the interests of SZB are protected in this process. This is not the responsibility of ESC.

***The ONR should be included as a consultee in the Requirement 19 Discharge process.***

ESC response: On 11 December 2023, the ONR responded to ESC separately to the consultation for Requirement 19, stating 'we can confirm that we have no need to provide comments through East Suffolk Council's planning consultation process. Please do note that we are engaging with SZC Ltd as it develops the detailed design of the temporary sea defence and EDF Nuclear Operations Ltd (Sizewell B) to ensure Sizewell B remains adequately protected from flooding prior to changes to the sea defence being implemented'. ESC also notes any future amendments to the Marine Infrastructure works designs (including any prompted by ONR requirements), will be submitted for approval by ESC in consultation with MTF partners in accordance with Section 3.6.4 of the Design Report.

## **Conclusion**

No objections were made by the consultees stipulated by the Secretary of State in DCO Requirement 19 (i.e. MMO and EA). All other matters raised in additional representations received by other parties have been considered in this report and responded to.

The Requirement 19 Design Report and associated submission materials and drawings play an integral part in the CPMMP discharged under Requirement 12. As set out in the Officer Report for Requirement 12 (DC/23/2660/DRR), the CPMMP contains sufficient safeguards ensuring alongshore sediment transport is maintained by the Applicant for the lifetime of the Sizewell C development.

To discharge Requirement 19, the Applicant was required to submit details of the layout, scale and external appearance of the proposed marine infrastructure associated with the Sizewell C project which includes a temporary hard coastal defence feature, the permanent hard coastal defence feature, the soft coastal defence feature, a permanent beach landing facility and a temporary marine bulk import facility.

The Applicant's submission materials listed in the Summary section above seek to demonstrate that the proposed marine infrastructure is in general accordance with the design principles set out in Chapter 5 of the Main Development Site Design and Access Statement as well as in accordance with the Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-000-DRW-100043); and include a monitoring and adaptive sea defence plan that sets out the periodic monitoring proposals for the sea defence features, their effects on coastal processes and the trigger point for when the crest height of the sea defence would need to be increased to 16.9m (AOD).

The Applicant's submission materials to be discharged under Requirement 19 (with reference to the CPMMP discharged under Requirement 12) demonstrates that the proposed marine infrastructure meets these requirements. ESC is therefore satisfied that the information submitted by the Applicant in Requirement 19 is sufficient to allow an assessment of the potential impact of the development and associated Marine Infrastructure works on coastal processes. The details submitted are therefore considered acceptable to discharge this requirement in line with the requirements established in the Sizewell C DCO granted by the Secretary of State for Business, Energy, and Industrial Strategy in July 2022.

**Recommendation**

It is recommended the application is approved.

**Informatives:**

There are no informatives.

**Background information**

See application reference DC/23/4124/DRR on [Public Access](#)

## **Appendix A**

Requirement 19 consultation responses - questions / comments received which have been fully considered but do not require changes to the submission materials and/or a SZC response, together with ESC's final position on each point raised:

### **2. EA**

2.1 The EA have reviewed the submitted Design and Access Statement, Illustrative Visuals, Coastal Defences Design Report and Drawings and are satisfied that Requirement 19 may be discharged. No further action by ESC.

### **3. MMO**

3.1 The MMO and ABP Mer have given feedback on ESC's draft feedback to SZC. There were no objections to the proposed changes proposed by ESC. No further action for ESC.

### **4. NE**

4.3 *'Natural England are satisfied that any small amendments to the design (e.g. those associated with the Bulk Landing Facility) will be monitored as part of the Coastal Processes Monitoring and Mitigation Plan (CPMMP) and reviewed by the Marine Technical Forum periodically, thereby ensuring that the required level of Long Shore Transport (LST) is maintained across the site for the necessary period'*. No action for ESC under Requirement 19.

4.4 *'Any changes that the review of Requirement 19 have generated for the CPMMP (Requirement 12) have not been assessed by Natural England'*. Noted - ESC has identified an action under Requirement 12, this has been reflected in DC/23/2660/DRR.

### **5. Mr. Mike Taylor**

5.1 *'Having asked many times for SZC Co maps and plans to include Ordnance Survey Grid lines for ease of reference. It appears using for example the plan on DC/23/4124/DRR Requirement 19 Permanent Coastal Defence feature 100414 that there is no standard format. Eg whilst the eastern grid is shown as 647000mE with another at 648000mE the northern references appear random eg 263650mN with another at 263900mN. Please can you investigate why this is so. Also for avoidance of error please check that the scale shown on the drawing is actually correct. I have a drawing on file which confirms that between 647000mE and 648000mE the distance is 1000metres. On drawing 100414 using the scale supplied it is 772metres. As another example The distance west from 648000mE to the (green line) existing SZB sea defence on my drawing is 468 metres yet on the 100414 drawing is 318 metres west of 648000mE Or am I missing something? Please could you confirm in order that a proper representation be made to the discharge of requirement 19. Sorry to trouble you with this but since these drawings are for approval it appears incumbent that they are factually correct or may require a material change to the DCO'*. ESC notes that this query was referred directly to the Applicant who acknowledged an error with the Scale Bar and amended 3 plans (413, 414 and 418, all rv. 2) that were put onto the application website.

5.2 *'the revised drawings are now on the East Suffolk Council website, thank you. However, there are still discrepancies with the blue line SZC boundary which we anticipate questioning today at a ONR/NGO forum. There may also be implications for the safety case for Sizewell B. This is the probably the first time that drawings have been supplied with correct grid lines, so we consider it is vital that any decisions made on the drawing/plans are made based on the correct plan. We must earnestly request that no decision is made without a thorough understanding of the possible implications. History shows that the Hinkley C site buildings plans had to be altered post consent. Please acknowledge receipt as a holding objection'*. ESC notes that there is more than one blue line shown on the plans with the boundary line shown in red. No discrepancies were found between the location of these lines across the 3 amended drawings. Questions regarding the

flood risk safety case for SZB and SZC are not within the remit of this consultation and should be referred to the ONR and EA. It is also noted that the EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

## **6. Mr. Nick Scarr**

6.1 *'These documents have presumably been approved by the ONR, the Environment Agency and East Suffolk Council. I am disappointed that they do not reflect my concerns. I find that the Applicant's work appears too focussed on Sizewell C in isolation, particularly its hard and soft coastal defence features rather than studies of the implications to Sizewell C's flood resilience of storm and surge action across the Greater Sizewell Bay (GSB) and loss of the GSB beachhead from shoreline retreat.*

*Shoreline retreat and the loss of the beach head across the Greater Sizewell Bay (GSB) - There appears to be little or no analysis of the loss of the Dunwich bank and its effect on shoreline retreat across the GSB immediately to the north of Sizewell C. The Dunwich bank may double in size, may collapse and may do both of these things by 2140. No one knows. What we do know is that it is lowering now, it is made entirely of sand, sand is not retained by the system, and it will be subject to new, unknown hydraulic forces of climate change sea-level rise and storm frequency change. If the Dunwich bank further diminishes there will be accelerated erosion to the shoreline and beach head of the Minsmere levels and the northern part of the Greater Sizewell Bay. What will be the effect on Sizewell C's flood resilience by this process and what is the response of regulators?*

ESC's focus in this process is to ensure the implementation of shoreline management policy and intent for management objectives that are described in Shoreline Management Plan (SMP) 7. ESC has accepted that the continuation of longshore sediment transport across the SZC frontage will achieve this and that, subject to changes detailed above, the CPMMP (discharged under Requirement 12 DC/23/2660/DRR) adequately describes the actions to be taken by the Applicant to deliver the desired outcome. During the DCO examination process, ESC raised concerns at how future shoreline change scenarios had been assessed. However, the DCO decision accepted the Applicant's approach and conclusions. The primary responsibility for assessment of the SZC flood resilience lies with ONR and EA. It is also noted that the EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

6.2 *'The ONR has made clear that shoreline retreat across the GSB is just a 'habitats' matter and is hence not related to the flood risk safety case: Question "FR4 : It is recommended to use a conservative approach that should address the loss of major sections of the marshlands whether from depletion of the Sizewell-Dunwich banks or climate change sea level rise of anything above 1.5°C." "ONR Response: This is essentially an environmental/habitats matter and therefore outside ONR's vires." In my view it would be prudent to fully analyse the case. Shoreline retreat across the marshlands and loss of beach head would allow unbroken wave access to Goose Hill as discussed in the next section. 2) The new Adaptive Sea Defence requirements specified by the Applicant. - If we consider the Applicant's January 2021 change submission found in document 'The Sizewell C Project, DCO Requirement 19: Main Development Site: Marine Infrastructure, Coastal Defences Design Report. October 2023' we see that EDF has increased the HCDF parameters: "An adaptive sea defence height of +16.4m OD excluding landscaping, with a maximum height of +18.0m OD " Clause 2.3.3.'*

ESC notes that the above is a criticism of ONR and EA for accepting an alleged non-precautionary assessment of coastal change as a basis for the design of a nuclear site that is required to be resilient to flood and erosion risk. ESC does not have a role in that process and will base its evaluation of Requirement 19 discharge compliance on how the development addresses potential impacts on coastal processes. The EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

6.3 In response to Mr. Nick Scarr's email submitted 20 December 2023 - The questions raised by Mr Scarr appear reasonable and require a response by the ONR and EA. However, they are not relevant to ESC's consideration of the discharge of Requirements 12 or 19. During the DCO, ESC raised concerns at the viability of the SCDF as a means of sustaining the longshore sediment pathway over the site life on grounds that SZC's



assessments of potential future erosion pressure were not sufficiently precautionary. Those assessments included a number of reports. The Inspector accepted the SZC position. The CPMMP obliges SZC to sustain a longshore sediment pathway unless / until amended which requires the approval of ESC and MMO. The risk is therefore with SZC. It is a matter for the ONR and EA to consider how the SZC flood defence design process takes account of the risks associated with predicting long term coastal change. The EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

**8. Theberton and Eastbridge Parish Council, Theberton and Eastbridge Action Group on Sizewell C (TEAGS); Minsmere Levels Stakeholders Group (MLSG)**

For Item 8.1, refer to main body of report.

8.2 *'All along the Suffolk coast we have significant issues with erosion, both constant and episodic. This has been observed in front of the proposed Sizewell C site even since the DCO Examination concluded. It is accepted that any structures which significantly extend beyond the natural sweep of the coastline gives rise to both upstream and downstream impacts of erosion and/or accretion and where the structure is mobile, it will begin eroding immediately following exposure to the natural longshore drift process'*. ESC accepts that there have been changes in beach profiles since the DCO decision was issued due to the shoreline constantly changing. Analysis of long-term beach monitoring data at this location shows alternating trends of erosion and accretion at many points along the frontage. It is not possible to draw conclusions on the accuracy of long-term change forecasts from two years of data. The SCDF is provided as mitigation for the potential impact of the HCDF becoming exposed by future coastal change and thereby interfering with alongshore sediment transport. This exposure has been forecast to occur during the design life of the site. The SCDF extends to seaward of the HCDF and so will be subjected to the action of waves and tides. When erosion of the SCDF becomes significant it will be replenished.

8.3 *'Analysis of the plans provided to the Discharge or Requirement 19 – Marine Infrastructure shows that the plan view of the Hard and Soft Coastal Defence has been misleading throughout the Development Consent Order consultations and submissions, even as late as the examination and that even now the plans submitted as part of DoR 19, 12 and 14 do not reflect the actual shape and seaward extent of the proposed infrastructure. When the cross sections provided in the DoR 19 submission are examined, the new Sizewell C coastal defence will protrude variously between 35m (at cross sections D-D and E-E) and up to 120m (cross section C-C) from the existing sacrificial dune. Such a significant extension of the defence seaward, beyond the existing sweep of Sizewell Bay, which has been eroding further since the ground level surveys relied upon in these submissions, will be immediately subject to significant erosion as an artificial promontory and the Coastal Processes Monitoring and Mitigation Plan DoRs 12 and 14 will be under immediate and constant pressure to repair and recharge the Soft Coastal Defence. The position of the Hard Coastal Defence toe at the Southern Tie In Roundhead is so extreme that it could easily come under severe pressure and be undermined'*.

ESC notes that the cross section in drawing 417 was incorrect, it presented the H&SCDF features further seaward than the plan in drawing 414. Section CC in Drawing 417 Revision 2 has been amended such that coordinates match the plan position in drawing 414. The SZC Co design that was approved by the DCO includes a sacrificial beach (i.e the SCDF) as mitigation to prevent exposure of the HCDF. By definition the SCDF is in a position exposed to current wave action which is expected to increase over time. Under the terms of the CPMMP discharged under Requirement 12 DC/23/2660/DRR, SZC Co are obliged to sustain a longshore sediment pathway by means of a maintained SCDF (or other agreed method), unless / until amended by the Cessation Report the SCDF. The position of the HCDF southeastern extent is likely to be a point of high erosion pressure but this does not alter the Applicant's obligation to maintain the longshore sediment pathway. This is a well-publicised obligation accepted by the Applicant.

8.4 *'During the DCO examination additional modelling of wave action on the beach was submitted and one of the conclusions concerning the Sizewell B salient was that once Sizewell B ceased operation, within a few years the salient would be removed as SZC does not have a near shore outfall to maintain this artificial shingle accretion. That is clearly an erroneous conclusion because the Southern Tie In Roundhead feature of the new*

*HCDF/SCDF for SZC sits right at the easterly apex of the Sizewell B salient. It would also indicate that no appropriate modelling of the proposed HCDF/SCDF design has been performed or reported to show what the impact of this design is for longshore drift and sediment transport. The Southern Tie In Roundhead, in particular, will be a physical intrusion into the seascape, significantly East and seaward of the current sacrificial dune and general curvature of Sizewell Bay in front of the Sizewell C site, ending relatively abruptly between 38m and 120m from the current sacrificial dune apex as it returns shoreward to meet with the existing Sizewell B sea defences. We believe that permitting these applications is irrational given that the HCDF/SCDF design in DoR 19 is currently flawed and the CPMMP cannot be assessed against a flawed design’.*

ESC agrees that the position of the H&SCDF southeastern extent is likely to be a point of high erosion pressure. Refer to 8.3 above.

*8.5 ‘The potential for significant effects beyond their immediate boundary, in respect of the adjacent coastline and sand dune defences for RSPB, Sizewell A and B defences and Sizewell village. Further impacts both north and south cannot be ruled out and have not been modelled adequately’.* ESC notes that the scheme impact assessment has considered the risk of impacts extending beyond the SZC coastal frontage. The CPMMP discharged under Requirement 12 DC/23/2660/DRR includes monitoring arrangements that extend well beyond the predicted impact zone and so will detect those impacts. If changes are found that are attributable to the SZC development, and those changes require mitigation actions, the CPMMP will oblige SZC Co to implement mitigation.

*8.6 ‘The CPMMP cannot be assessed without credible HCDF/SCDF design’.* ESC notes that the design information submitted in Requirement 19 is sufficient to allow an assessment of the potential impact of the works on coastal processes. Some additional information is required to be added regarding the profile and plan extent of the SCDF. See Items 1.1, 1.2, and 1.3 set out earlier in the main body of this report.

*8.7 ‘The designs and plans shown in the CPMMP document have the same incorrect General Arrangement Plans as discussed above and submitted for DoR 19’.* ESC notes that there was a discrepancy in the Requirement 19 information concerning the seaward extent of the HCDF at the southern end. This was subsequently referred back to the Applicant and corrected.

*8.8 ‘The CPMMP plans show the Soft Coastal Defence (SCDF) extending at least 60 metres from the toe of the HCDF and well beyond the existing natural sweep of Sizewell Bay. This is confirmed in the DoR 19 submission’.* ESC notes that the SCDF extends seaward of the HCDF and so will be subjected to the action of waves and tides. When erosion of the SCDF becomes significant it will be replenished as per the Applicant’s obligation to maintain a longshore sediment pathway.

*8.9 ‘Based on plans submitted to the PINS DCO Examination and in DoR 19, the most southeasterly extent of the Hard Coastal Defence is situated on and below the existing Sizewell B Salient, a structure that the applicant stated in the DCO will “relax” (erode) back to the natural sweep of Sizewell Bay within a couple of years of Sizewell B ceasing operation’.* The question of HCDF toe exposure risk is relevant to the discharge of Requirement 19. ESC expressed concerns during the examination at both SCDF viability and HCDF foundation exposure risk at this location. The potential impacts of a relaxed SZB outfall salient on the HCDF foundation and SCDF viability have been considered by SZC and the conclusions accepted by PINS. SZC reports advise that historic erosion rates at the SZB salient are very low and if there is local beach retreat after a SZB outfall shutdown, it will not be significant. PINS has accepted this. As stated above, there is an obligation on SZC to maintain a SCDF unless / until changed by the Cessation Report, that will be prepared 10 years prior to decommissioning, or otherwise amended by the CPMMP change process that requires the approval of ESC. If the CPMMP is implemented as described, the HCDF toe will not become exposed. There is a risk that the predicted SCDF erosion trends will prove to be an underestimate of actual erosion pressure over the SCDF life, particularly if the station life is extended. However, under the terms of the CPMMP this risk is lies with SZC.

8.10 *'The HCDF toe at cross section C-C, the Southern Tie In Roundhead, is at significant risk of being exposed quickly because it is significantly seaward of the natural sweep of Sizewell Bay and maintaining the SCDF at this extreme point will be difficult from day 1 threatening the overall integrity of the structure of the HCDF itself and exposing the impracticality of the CPMMP'*. The cross section submitted in drawing 417 was incorrect. It presented the H&SCDF features further seaward than the plan in drawing 414. Section CC in Drawing 417 Revision 2 has subsequently been amended to match the correct plan position in drawing 414. Issue closed.

8.11 *'Whilst the CPMMP plan does not superimpose the HCDF/SCDF structure on the existing profile of the coastline, those in the DCO submissions and DoR 19 do. However, in the past two years that profile has significantly eroded and changed adding further concern that the proposals in the CPMMP against a flawed HCDF/SCDF design have no practical foundation'*. The points raised here are a repeat / summary of points raised in items above. The ESC response to them is therefore included in the items above.

8.12 *'The adaptive design of the HCDF/SCDF will raise the overall height of the defence and lower the toe from 0mOD to -1.5MOD. This will also push the eastern extent of the HCDF toe seaward for an additional 17m and the SCDF will have to be re-established with similar parameters to those discussed above. This is an even more severe impact on an already unsustainable design'*. The impact assessment for an Adaptive HCDF profile has been accepted by the Secretary of State as part of the DCO approval.

8.13 *'Until the HCDF/SCDF structure is designed to ensure minimum impact on the coast by bringing the eastern/seaward extents of the HCDF/SCDF closer to the existing shoreline and natural sweep of Sizewell Bay, the structure as currently submitted in DoR 19 will only add to coastal impacts across the greater Sizewell Bay area'*. ESC agrees that the position of the H&SCDF southeastern extent is likely to be a point of high erosion pressure. Refer to Item 8.3 above and Item 1.5 within the main body of this report.

8.14 *'The plans as currently submitted are unsustainable and the CPMMP will be unable to maintain the defence'*. Under the terms of the DCO and CPMMP, SZC is obliged to sustain the SCDF. The purpose of the CPMMP is to maintain a longshore sediment pathway, not to maintain the defence. It will be a matter for others to determine if the flood defence design is adequate. The EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

8.15 – Mr. Paul Collins' email 28 December 2023 – *'In the latest submission for DoR19, SZC have also adjusted the footprint of the roundhead at the southern end pulling the centre 20m westwards, towards the main site and Sizewell B (SZB), from Easting 647615 to 647595. That still places the foot of the HCDF several meters seaward of the SZB salient and shows the Soft Coastal Defence (SCDF) rising to +6.4m OD and then gradually sloping at the same design slope as for the rest of the SCDF. EDF have stated that this slope would need to be more abrupt given the seaward extent of this part of the HCDF, but that is not in evidence in its original or updated plans that are being requested for approval'*.

The change in easting coordinates for the southern HCDF extent was correction of an error in the original drawing 417 as discussed elsewhere in this report. Regarding the SCDF slope at this location, SZC is obliged to maintain the SCDF over the full HCDF frontage. The predicted range of beach gradients to be delivered by a managed SCDF is described in Design Report Section 3.10.9. The range is described as within natural variation. No further action by ESC.

*'SZC have also stated quite clearly during the DCO examination that they expect the whole of the SZB salient to be lost within a few years of SZB ceasing operation, as there will be no outflow from the SZC reactors close to shore to maintain this feature, unlike SZB. This submitted design simply would not allow that as there will be both HCDF on the salient and SCDF starting at +6.4m OD extending some 70-80m seaward until it reached 0m OD and, at this distance, the sea floor will be several metres below 0m OD. So this current plan does not even conform to expectations already set out by SZC in previous submissions'*.

Reports on SCDF viability submitted by SZC during the DCO took account of expected SZB salient retreat and identified the SCDF south end to be a point of relatively high erosion pressure. SZC is obliged to maintain the SCDF over the full HCDF frontage. The risk of this task requiring higher than expected effort lies with SZC.

*'This design will cause damage both north and south of its position and the claim that its position and SCDF shingle/sand protection can be managed through the Coastal Processes Monitoring and Mitigation Plan (DoR 12) with recharge is fanciful. The distance that the roundhead HCDF foot is seaward of the existing SZB sacrificial dune (~30-40m) places the structure in serious danger of being exposed and undermined'.*

The ESC's response above covers this matter.

8.16 *'On behalf of Theberton and Eastbridge Parish Council, Stop Sizewell C and Minsmere Levels Stakeholders Group, we believe that these two request for discharge cannot be approved because the hard and soft coastal defence (HCDF and SCDF respectively) plans currently provided to East Suffolk Council by the applicant for DC/23/4124/DRR extends beyond the parameters provided in Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-100-DRW-100043) as required in Requirement 19 of the Development Consent Order. Requirement 19 is clear that the parameters referred to include both the Hard and Soft Coastal Defences amongst other works at the coast'.*

The ESC view is that the Requirement 19 submission is compliant with the parameters provided in Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-000-DRW-100043) The plan position and profiles of the H&SCDF works that have potential to affect coastal processes have not significantly changed from the information provided at completion of the DCO process.

8.17 *'Cross-sections and outline plans provided for the Hard and Soft Coastal Defence design show the Soft Coastal Defence protruding seaward or some 80-100m beyond the foot of the Hard Coastal Defence toe, well beyond the parameters referred to above'.*

This question is similar to that covered in Requirement 19 Item 1.3 in the main body of this report. The actual seaward extent of works to form or replenish the SCDF will vary depending upon the profile of the existing beach that the SCDF is built upon. The horizontal dimensions shown on SCDF profiles are indicative of the SCDF seaward extent measured at a fixed datum. No further action.

8.18 *'Whilst the Hard Coastal Defence design itself may well remain within the parameters specified in Requirement 19, the majority of the associated Soft Coastal Defence works are significantly eastwards of the parameter boundary and thus are non-compliant'.*

The query being raised here refers to the location of the seaward extent of the H&SCDF in relation to a Red Line which appeared on two of the Main Development Site Operational Parameter Plans forming part of the DCO (SZC SZ0100-XX-000-DRW-100043 rev 04 Sept 21 and 100050). The concern raised here in Item 8.18 suggests that the marine infrastructure extends seawards of the redline which has been incorrectly interpreted as marking the eastern parameter limit (i.e. the eastern limit for development) set out in the DCO parameter plans. The wording of Requirement 19 states that the information submitted by SZC for the discharge of Requirement 19 must be in accordance with the DCO parameter plan. ESC raised a similar query with SZC during the Requirement 19 pre-application process concerning how the seaward extent of the SCDF slope appeared to be limited by a red line boundary that would not allow the full extent of the SCDF, as illustrated in profiles, to be constructed and maintained. The Applicant advised *'The red line shown on the figure running north-south along the shore is not part of the red-line demarcating the boundary of the authorised development. We believe it was originally included to demarcate the terrestrial-marine boundary for internal SZC purposes. However, to be clear, that particular red-line does not constrain the extent of the SCDF in any way, and the SCDF can extend further east past that line. The red line will be removed from the formal submission.* The red line which was used by SZC Co. to demarcate the terrestrial-marine boundary (following the mean high-water mark) was not included on the formal Requirement 19 submission materials, notably drawing SZC-SZ0100-XX-000-DRW-100414. ESC accepted this clarification.

8.19 *'There are also still significant inconsistencies in descriptions of the extent of the SCDF, in particular at the southern roundhead, which we have pointed out in both sets of plans submitted for this application'. This is a repeat of a previous question which is answered in Requirement 19 Item 1.5 within the main body of this report.*

8.20 *'Also in the latest submissions there are significant potential changes, including integrating the SZB and SZC coastal defences (given permission from SZB) and the implication that a changed waste strategy concerning nuclear spent fuel and long term protection may reduce or eliminate the need for the adaptive HCDF/SCDF design. The first of these two suggestions is implausible, and factually incorrect, as any integration of SZB and SZC HCDF would require new safety cases be submitted to ONR for both SZB and SZC and may also significantly impact the current interim judgement by ONR of the SZC Nuclear Site License. It seems unlikely that this would be approved given the SZB coastal defences are not seismically qualified and consist of geotextile defences compared to the seismically qualified rock armour defence being planned for SZC. The suggestion that the adaptive design of the SZC HCDF could be made redundant or unnecessary by potentially providing flood and potential overtopping defences at the Interim Fuel Store is unacceptable and is potentially a material change to the Development Consent Order. This suggestion is made without any supporting plans or indications regarding consultation with either the EA or ONR who would need to review and approve any such plans'.*

In accordance with Design Report Revision 5 clause 3.1.5, any design changes will need to be developed and submitted to the appropriate organisations for approval. The ESC assessment under Requirement 19 is based upon current design information. The response in Requirement 19 Item 9.34 is also relevant to this query.

8.21 *'To compound this, the design criteria concerning climate change have also been relaxed from 95% RCP8.5 to 84% RCP8.5 when all the indications from climate science are saying that the effects of climate change are accelerating rather than relaxing'. This is answered in item 9.28.*

8.22 *'This application with its flip-flopping of potential designs, none of which are at a level that can be considered close to a design with sufficient depth to be approved, indicate that the applicant is simply trying to deflect attention away from what is an unsupportable application to discharge Requirement 19'. Any design changes will need to be developed and submitted for approval. The ESC assessment under Requirement 19 is based upon current design information.*

8.23 *'The current application, DC/23/4124/DRR should be rejected as a breach of the conditions specified within the development consent order and for its unsupported and potentially material changes to that order'. ESC does not agree for reasons given in items above.*

8.24 *'As DCO Requirement 12 is reliant upon an approved design for the Hard and Soft Coastal Defence through Requirement 19, approval cannot proceed for the submitted Coastal Processes Monitoring and Mitigation Plan, DC/23/2660/DRR, as a design that complies with Requirement 19 has not yet been submitted'. The deadline for discharge of Requirements 12 and 19 was amended to the same date.*

## **9. TASC**

9.1 *'Change of design life of the Hard Coastal Defence Feature (HCDF) from 2140 to 2120 - Para 3.1.2 of the Marine Infrastructure Coastal Defences Design Report (MICDDR) states "The current timescale being considered for the design of HCDF is to 2120 accounting for climate change over this period." However, the design submitted at DCO was for an operational design life of 2030 to 2140. Indeed, the Applicant confirms this, themselves, in para 3.1.2. The Applicant unsuccessfully tries to justify the change in design life of the sea defences to 2120 through the availability of the 'Adaptive Design Approach' – para 5.2.1 MICDDR states "The current stated timescale for the design life of the sea defences is to 2140. However, a timescale now being considered for the design of HCDF is to 2120 accounting for climate change over this period. The 2120 date*

*represents the planned timescale for end of decommissioning of the main site and the start of interim spent fuel facility operation”.*

*TASC draw attention to Para 2.3.1 of the MICDDR which advises that in January 2021 “The design life of the structure is 110 years (up to 2140 – extended to accommodate change in spent fuel storage strategy)”. The Applicant has failed to supply a new spent fuel strategy that justifies the new 2120 timeline. Indeed, the Applicant offers no explanation of how the removal of spent fuel from the SZC site by 2120 can be achieved or what is meant by ‘accounting for climate change’ – in TASC’s opinion, this means that as climate change is predicted to produce ever worsening adverse impacts, the Applicant is unable to demonstrate that the SZC site can be kept safe for its full lifetime (60 years of operation, plus the decommissioning period and the time required for spent fuel to be stored and then safely removed from the site ), or justify the 2120 timescale as being an achievable date for all the spent fuel to have been removed from the site. Further watering down of climate change parameters is evidenced in para 3.1.3 which states, without any justification or explanation, “As part of design development, the climate change parameters adopted by the project are now the 84% of RCP 8.5 from UKPC 18. Previously the 95% [of RCP 8.5] was used.”*

*Proposing a design life for the HCDF to 2120 is a further example of the Applicant’s lack of adherence to the precautionary principle. TASC draw ESC’s attention to National Policy Statement EN1 which states in para 5.8.7 “Where new energy infrastructure is, exceptionally, necessary in flood risk areas (for example where there are no reasonably available sites in areas at lower risk), policy aims to make it safe for its lifetime without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. [emphasis added] It should also be designed and constructed to remain operational in times of flood.” TASC consider that changing the design life of the HCDF to 2120 is a fundamental change to the SZC project so should be the subject of an application to the Planning Inspectorate as a material change to the SZC DCO. The 2120 date contradicts the Coastal Processes Monitoring and Mitigation Plan (CPMMP) that is being considered under DC/23/2660/DRR. The CPMMP cessation report, states “2140 is the end of the design-life for the HCDF, when all nuclear materials and safety functions will have been removed from the site” So either the application submitted to discharge Requirement 12 or this one for Requirement 19 is incorrect – they can’t both be right’.*

ESC sought clarification from SZC Co on if / how the design of Marine Infrastructure elements will be affected by the proposed change in design life from 2140 to 2120 which is set out in Item 1.8 of the main body of this report. ESC notes that the Applicant has now removed reference to a change in design life to 2120, with the HCDF design life being stated as 2140 in both the CPMMP and Design Report. ESC Items 1.2 and 1.3 within the Requirement 12 CPMMP discharging report (DC/23/2660/DRR) set out that the obligations on SZC to implement the CPMMP will not be limited to a fixed date but will continue until within 10 years of removal of nuclear material from the ‘site’, which includes the Interim Spent Fuel Store, when a Cessation Report will be prepared. ESC also sought clarification from the Applicant regarding the potential need for the H&SCDF to provide protection to the ISFS until at least 2160. This is covered in Item 1.3 in the main body of this report. The points made regarding management of the flood defence should be directed to the ONR and EA. However, it is noted that the EA have raised no objections.

*9.2 ‘Consideration of the full lifetime of the SZC site - As ESC have a duty of care to protect the safety of its residents, TASC believe ESC need to acknowledge that spent nuclear fuel will be stored on the SZC site beyond the design life of the proposed sea defences i.e. beyond 2120., This was confirmed by the Applicants during the DCO examination when they advised that the full lifetime of the site would be till the mid-late 2100s i.e. long after 2120 (therefore, potentially unprotected from inundation from the sea). Spent nuclear fuel needs to be stored on site until it is sufficiently cooled to safely move to a Geological Disposal Facility (GDF). This is supported by the Applicant’s own DCO documents – para 7.7.92 of DCO document APP-192 (EN010012-001812-SZC\_Bk6\_ES\_V2\_Ch7\_Spent\_Fuel\_and\_Radioactive\_Waste\_Management.pdf (planninginspectorate.gov.uk)) which states: “...the date for start of transfer of spent fuel from the Sizewell C site to a Geological Disposal Facility is 55 years after the end of generation. The process of transfer from the site will take approximately eight and a half years. On completion of transfer of the spent fuel from site, the spent fuel ISF would be decommissioned” and para 5.1.5 of APP-189 (6.3 Revision: 1.0 Applicable Regulation: Regulation 5(2)(a) PINS Reference Number: EN010012 Volume 2 Main Development Site Chapter*

5 Description of Decommissioning) states: “decommissioning of the ISFS [the spent fuel store] would take 5 years”. The Office for Nuclear Regulation (ONR) separately confirmed to TASC that a total period of approximately 70 years is required for EPR spent fuel to cool sufficiently in order to be safely transported off the site and the spent fuel store decommissioned. SZC is proposed on the basis that it will operate for 60 years so if SZC starts operating in 2035 then 60 years of operation would end in 2095 and the site cleared of spent fuel (i.e. fully decommissioned) approximately 70 years later, with an end date of around 2165 (at the earliest). Bearing in mind there is no UK GDF in existence, nor one guaranteed, and that the timetable for EPR fuel cooling is somewhat speculative as there is presently no history of storing EPR fuel, even a 70-year period from end of generation to final decommissioning is not precautionary. The new 2120 date is a fundamental aspect of the SZC project, determining the longevity of both the HCDF, the SCDF and the CPMMP. However, it is clear that spent nuclear fuel will still be on the SZC site beyond the new 2120 date, indeed beyond 2140, and the SZC site therefore left unprotected for its full lifetime. It is clear from this application and the one for the discharge of the CPMMP, **there is no Plan B** to deal with a rapid acceleration of sea level rise (SLR), increased storm surges and more extreme weather events during the full lifetime of the SZC site. This application implies that the SZC site will no longer need protection beyond 2120 so the Applicants need to explain why this is the case. If the Applicants are now proposing to move the spent fuel from the site by 2120, then this application needs to include a new spent fuel strategy setting out how and to where the spent fuel will be moved, and at what cost. On this basis TASC believe that ESC does not have sufficient information to discharge Requirements 19 and 12 (DC/23/2660/DRR). As stated above, TASC are of the opinion that the change in design life of the HCDF should be treated as a material change to the Sizewell C DCO’.

Refer to Item 9.1 above.

9.3 ‘Positioning of the HCDF - TASC remind ESC that according to their final Statement of Common Ground at the end of the DCO examination (DCO document REP10-102 <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-008129-Sizewell%20C%20Project%20-%20Final%20SoCG%206.pdf>), in paras 8.12, 8.13 and 8.14 of the Coastal Processes section on pages 19-22 **ESC did not agree**; that the position of the HCDF could meet the ‘hold the line policy’; that a precautionary approach had been taken with the sea defences; and, that the process takes sufficient account of risk and uncertainty associated with a 120/140 year asset life, respectively. And in ESC’s letter of 14th April 2022 (<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-010799-East%20Suffolk%20Council.pdf>) when replying to BEIS’s letter of 31st March 2022, ESC confirmed that this was still their position. In TASC’s opinion, these proposals, together with those for the CPMMP do not meet the ‘hold the line policy’; do not take a precautionary approach; and does not take into account the certainty, or the associated risks, that spent nuclear fuel will be stored on site beyond 2120’.

ESC did have residual concerns at conclusion of the DCO that are summarised in the SoCG referenced above and the Local Impact Report (LIR). These concerns were considered by PINS but not accepted as grounds to require design changes nor to withhold approval. ESC’s assessment of information submitted in Requirements 12 and 19 is based upon an acceptance of the Inspector’s conclusions.

9.4 ‘While the proposed location of the entire sea defence is too far seaward, we are particularly concerned about the positioning of the southern Mound on the current beach/SZB salient. Drawing 100417 appears to show the toe of the HCDF only 37 metres from the 2030 MHWS line. Having witnessed the loss of 1-2 metres of the sacrificial dunes in front of the SZC site due to erosion over the last 18 months, bearing in mind the anticipated loss of the SZB salient once SZB ceases operations and the natural embayment that will take place in front of the SZB/SZC sites, the positioning of the HCDF is totally unsuitable. There would appear to be great risk of the toe of the southern mound being very regularly exposed by the time SZC becomes operational. Once the sea meets the HCDF, which it is likely to do over the full lifetime of the SZC site, there will be inevitable consequences for neighbouring properties (including SZB and its spent fuel store) – these proposals make no consideration of this, contrary to EN1 para 5.8.7 quoted above’.

The Applicant's proposal does recognise that the HCDF would probably become exposed without the SCDF which is proposed as mitigation for that eventuality. The cross section submitted in drawing 417 was incorrect, it presented the H&SCDF features further seaward than the plan in drawing 414. Section CC in Drawing 417 Revision 3 has been amended to match the plan position in drawing 414. Also refer to ESC response in Item 1.5 within the main body of this report regarding the potential for a design change that would move the southern HCDF splay landward.

*9.5 'Limitation of scope of geomorphological/flood-risk assessments to the Sizewell C frontage - With the focus of these proposals and those for the CPMMP (DC/23/2660/DRR) being only on the SZC frontage, they do not adequately consider the risk of the lack of sea defences on the western boundary of the site. The Applicants have proposals for the height of the HCDF to be raised as part of the adaptive management arrangements with no consideration of the fact that if the height of the HCDF needs to be raised, there will inevitably have been a breach of the low lying dunes to the north of the SZC site and the sea likely being to the west of the SZC site. With no sea wall on the western elevation and the nuclear platform only being at 7.3m AOD, the site will be extremely vulnerable to flooding from the west at times of extreme still water levels with wave overtopping. Para 2.3.2 states "The above changes increased the extreme 1 in 10,000yr design Still Water Level from 5.95m OD to 7.02m OD. The design Still Water Level is defined as the estimated present-day extreme water level including surge, derived from a statistical analysis, plus the climate change increase in mean sea level and surge to the year 2140." The risk of the site being flooded from the west should be taken into account by ESC when considering the adequacy of the proposed sea defences'.*

Concerns regarding management of flood risk should be directed to the ONR and EA. The EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

*9.6 'Para 3.2.1 states "...the permanent sea defences that will be in place throughout the operational life of the power station and during decommissioning." The permanent sea defences need to be in place for the full lifetime of the site up to the time that the spent fuel has been safely removed from the site , not just up to the end of decommissioning'.*

ESC agrees. Refer to ESC's Item 1.3 response and action with Requirement 12 (DC/23/2660/DRR).

*9.7 'Para 3.3.3 states "The temporary HCDF will be installed as one of the earliest construction activities, prior to the removal of the existing ridge ("Bent Hills") which provides a part of the existing SZB Sea Defences." This appears to conflict with another discharge application, which stated that removal of the Bent Hills is included in Phase 1 works and construction of the temporary HCDF in Phase 2'.*

It is unclear which other discharge application is being referred to here, however in terms of Requirement 19, the temporary defence will be installed as one of the earliest construction activities and it will protect the existing SZB nuclear power station and the SZC main construction areas excavation from coastal flooding during the construction phase. ESC notes that this text relates to the flood resilience of SZB and is therefore not within ESC's remit. This is a matter for SZB and ONR to consider.

*9.8 'Para 3.3.5 states "The extent of ground improvement is to be confirmed at detailed design stage..." This confirms that the current proposals are not sufficiently advanced to be approved, the Northern Mound being an area vulnerable to inundation from the sea. The paragraph also refers to the 'Access Road" but it is not clear whether this refers to the road from the SSSI Crossing or the road from the BLF'.*

To discharge Requirement 19, the Applicant was required to submit details of the layout, scale and external appearance of the proposed marine infrastructure associated with the Sizewell C project. The Applicant's submission materials seek to demonstrate that the proposed marine infrastructure is in general accordance with the design principles set out in Chapter 5 of the Main Development Site Design and Access Statement as well as in accordance with the Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-000-DRW-100043); and include a monitoring and adaptive sea defence plan that sets out the periodic monitoring proposals for the sea defence features, their effects on coastal processes and the



trigger point for when the crest height of the sea defence would need to be increased to 16.9m (AOD). The Applicant's submission materials to be discharged under Requirement 19 (with reference to the CPMMP discharged under Requirement 12) demonstrates that the proposed marine infrastructure meets these requirements. ESC's primary consideration relates to those parts of the marine infrastructure design that have potential to affect coastal processes. Ground improvement work is unlikely to fall within that scope under Requirement 19. Any Marine Infrastructure design amendments are required to be submitted for approval by ESC in consultation with MTF partners as set out in Design Report Section 3.1.5.

9.9 *'Para 3.4.2 states "The Adaptive Design will only be implemented if mean sea level rise exceeds the reasonably foreseeable design value during the operational life of the structures..." This appears to be saying that adaptation will only take place during either the operation of SZC or up to 2120, neither of which is acceptable, due to spent fuel still being stored on site beyond 2120'.*

It is a matter for the ONR and EA to comment on the adequacy of SZC Co. proposals for the protection of the spent fuel store from flooding. The EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

9.10 *'Para 3.4.3 refers to "The water levels shown are at the end of design life (2140)..." Is the design life of the HCDF 2140 or 2120?'*

ESC notes the date change was the subject of an ESC query to SZC (refer to Item 1.8 in the main body of this report). There is more relevant text on the design life end date in the Design Report Section 3.1.3 which was also the subject of an ESC query in Requirement 12 (DC/23/2660/DRR) under Item 1.3. Text was added to the CPMMP which resolves the design life end date query.

9.11 *'Para 3.4.5 states that "The design considers a number of constraints and interfaces, including:...The cut-off wall design and construction (anchors)", but the potential implication of the anchors being installed adjacent to/within the sea defences are not disclosed. For example, ground anchors are not shown in figure 3-5'.*

If in the future the design of ground anchors requires a change to the marine infrastructure design submitted for approval in Requirement 19, then SZC Co. will need to submit design variation request for consideration by ESC.

9.12 *'Para 3.4.8 states "The Credible Maximum (CM) has been taken as the H++ scenario defined in UKCP09 (not updated for UKCP18)." No explanation has been provided to justify why the UKCP18 update has not been carried out and reflected in the Table 3-1 Design Parameters'.*

It is a matter for the ONR and EA to comment on the adequacy of SZC Co. proposals for the protection from flooding. The EA made no objections to the current design, being satisfied that Requirement 19 could be discharged.

9.13 *'Para 3.4.10 sets out the Design Parameters, stating "The key inshore design parameters for the sea defence are..." These appear to be deficient as they do not say that Storm Surges are included'.*

ESC's response is as above in 9.12.

9.14 *'Figure 3-4, by showing the cut-off wall at the southern end being built on the line of the current SZB sea defences, illustrates what TASC have been saying for years, that the SZC site is too small for two EPR reactors, hence the sea defences being located too far seaward'.*

This matter is not within the scope of Requirement 12 or 19.

9.15 *'Table 3-2 highlights that this is not the final design. Neither this application nor that for Requirement 12 refer to expected dates for important aspects of the sea defence design to be finalised. This supports TASC's view that this application is not suitable for approval.'*

Design Report Section 3.1.5 states that any new or amended design information will need to be submitted to ESC for approval in consultation with MTF members.

9.16 *'We question why the Applicants state that they need to use 6-10 tonne rock when 10-12 tonne rock has been used on other projects – this would appear to indicate that the Applicants are willing to compromise safety over cost. After over a decade of planning why have the Applicants not yet decided if the adaptive design will use rock or concrete armour. Why are there no details of the proposed soft-fill materials or reference to the geotextile membranes without which the soft-fill will get washed away?'*

The size of rock armour, and details of internal HCDF soft fill, are not relevant to ESC's consideration of the impact of the works on coastal processes. To discharge Requirement 19, the Applicant was required to submit details of the layout, scale and external appearance of the proposed marine infrastructure associated with the Sizewell C project. The Applicant's submission materials seek to demonstrate that the proposed marine infrastructure is in general accordance with the design principles set out in Chapter 5 of the Main Development Site Design and Access Statement as well as in accordance with the Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-000-DRW-100043); and include a monitoring and adaptive sea defence plan that sets out the periodic monitoring proposals for the sea defence features, their effects on coastal processes and the trigger point for when the crest height of the sea defence would need to be increased to 16.9m (AOD). The Applicant's submission materials to be discharged under Requirement 19 (with reference to the CPMMP discharged under Requirement 12) demonstrates that the proposed marine infrastructure meets these requirements. ESC's primary consideration relates to those parts of the marine infrastructure design that have potential to affect coastal processes.

9.17 *'Para 3.7.2 refers to the Sandlings Walk, stating "The cross sections shown in Figure 3-11 indicate the proposed location of this path." However, we can find no reference to the permissive path in Figure 3-11. This is one of many examples of inadequate drawings, many of which lack keys or have inaccurate keys, scales and details.'*

Refer to SCC PRow team response seeking additional information on drawings. The SZC co. response to questions raised by SCC was accepted by ESC.

9.18 *'Para 3.10.6 highlights the incomplete nature of the current proposals – the modelling needs to take into account the recent huge loss of beach volume and erosion of the sacrificial dunes in front of the SZB and SZC frontages over the last couple of years. Modelling should assume that the recent rate of depletion and erosion will continue.'*

Modelling of SCDF potential resilience to predict Recharge Intervals, carried out in report TR544 Rv 4 (SZC\_Bk9\_9.12 ( C ) Preliminary Design and Maintenance Requirements for the Sizewell C Defence Feature [[REP7-101](#)]) includes consideration of historic worst-case rates of retreat.

9.19 *'Para 3.11.1 states "The HCDF is designed to protect Sizewell C from a 1 in 10,000yr storm event with "Reasonably Foreseeable" (RF) climate change effects up to the end of its design life in 2140." Again, is the design life 2140 or 2120? Why does this paragraph and 3.11.2 refer to section 0?'*

Refer to ESC Item 1.8 in the main body of this report for the ESC response to SZC Co. on the Design Life Date change. ESC queried the 'Section 0' reference with SZC Co. and corrections were made in the Design Report.

9.20 *'Para 3.12.7 states "It is therefore not practicable to modify the operational SZC platform position or configuration, nor the position of the outer security fence relative to the internal platform area to lessen the*

*seaward extent of the sea defences.” This, again, highlights that this project is too large for its plot, forcing the impactful sea defences too far seaward. TASC believe, that in the light of recent coastal erosion, it is imperative that ESC insist on applying the ‘hold the line’ policy within the Shoreline Management Plan’.*

Consideration of the adequacy of plot size is not a matter for consideration under Requirements 12 or 19. The SMP policy issue was presented to and considered and closed off by PINS during the DCO and accepted by the Secretary of State. It is not within the remit of Requirement 12 or 19 to reconsider this.

9.21 *‘Para 3.12.11 concludes with “This will require further development in the detailed design phase” This, again, highlights important elements of the HCDF still need to be designed, thereby supporting TASC’s contention that the current proposals are not sufficiently advanced to be approved’.*

Details of the Marine Infrastructure that have potential to affect coastal processes are sufficiently well developed for ESC, and other approving bodies, to take a view on. If the design information is approved now, any future amendments to it will need to be submitted to ESC, and others, for approval.

9.22 *‘Para 4.4.3 states “These Works will include excavation within the beach/ SCDF to permit the extension and lowering of the HCDF toe, and the transport and placing of armour stone units to form the new revetment.” The works that are required on the beach to extend the toe of the HCDF for the adaptive design should take place now if SZC construction goes ahead, to save the disruption to the beach, its users and the natural environment at a later date’.*

ESC supports the adaptive approach proposed by SZC Co.

For Item 9.23 – refer to main body of report.

9.24 *‘Section 5.4 refers to the 10 yearly Periodic Safety Reviews, with the implication that these will be sufficient to meeting increasing hazards such as those from the impacts of climate change. However, the recent decade has taught us that extreme weather events are occurring at levels never witnessed before and are happening at an alarmingly increasing rate. A 10 year window needed for the construction of the adaptive sea defences and a near 10 year period needed to clear the site of spent fuel may be too long to meet the challenges ahead, particularly if we reach one or more of the climate’s tipping points’.*

ESC is content that these are reasonable allowances which will be kept under review and amended if required.

9.25 *‘Incomplete design details - TASC have seen no reference to the Applicant’s plans should the ground anchor/ground improvement trials not provide the required certainty needed for the construction of SZC’s sea defences’.*

If the submitted Marine Infrastructure design is approved, any future amendments will need to be submitted to ESC for approval in consultation with MTF partners.

9.26 *‘Potential harm/risk to Sizewell B - TASC are concerned about the potential adverse impacts from these works on SZB. These include the lack of protection due to use of soft materials between the SZB and SZC sea defences. Also, from the installation of ground anchors for the cut-off wall, potentially being beneath the SZB site’.*

ESC considers it a matter for SZB, ONR and EA to ensure that the interests of SZB are protected in this process.

For Items 9.27 and 9.28, refer to main body of report.

9.29 *‘Lack of consultation - TASC cannot understand why the ONR have not been consulted on this issue given their responsibility for assessing site safety as part of the Nuclear Site Licence application. Indeed, the ONR*

*have advised that there is further work being undertaken by them for the ONR to be satisfied that the proposed sea defences are adequate’.*

ESC understands that the ONR has an independent design review and approval process and does not consider it necessary to respond as a consultee to this DCO Planning Requirement process. The ONR provided a response to ESC outside of the consultation process stating *‘we can confirm that we have no need to provide comments through East Suffolk Council’s planning consultation process. Please do note that we are engaging with SZC Ltd as it develops the detailed design of the temporary sea defence and EDF Nuclear Operations Ltd (Sizewell B) to ensure Sizewell B remains adequately protected from flooding prior to changes to the sea defence being implemented’.* ESC also notes that should the Marine Infrastructure works designs be approved, any future amendments to them, including any prompted by ONR requirements, will be submitted for approval by ESC in consultation with MTF partners in accordance with Design Report Section 3.6.4.

9.30 TASC submission 23 November 2023 – *‘Further to TASC’s submission of 19th November relating to the discharge of Requirement 19, I want to draw your attention to an email sent 21st November by the Office for Nuclear Regulation –ONR) - copy included below. I believe that this reinforces comments we made in our submission:- 1. The design of the sea defences has not been finalised. 2. The 2120 design life for the sea defences has not been agreed by the ONR. 3. Sizewell C Co have more work to undertake in their attempt to arrive at a final sea defence design, including ‘ongoing coastal flooding studies’.*

ESC responses to the above questions are included in earlier responses. No further action.

9.31 TASC submission 5 January 2024 – *‘Before referring to the specific issues arising from this application document, TASC would like to express our disappointment that parties who have already made responses to this application were not notified of the new documents submitted on 14th December 2023. TASC appreciate that it is not a legal requirement to consult with the public but feel that there is justification for interested parties to be notified, in view of ESC’s responsibilities to its constituents. Also, TASC has a role as a representative of concerned members of the public who appreciate that the Sizewell C (SZC) sea defences are of critical importance to ensure the public, the workforce and the environment can be protected from harm resulting from the flooding of the SZC site over its full lifetime i.e. up until the site is clear of spent nuclear fuel and the interim fuel store is fully decommissioned. TASC fail to understand the reason for there being no explanation within the 14th December documents to say why the documents have changed from those submitted in October nor what the changes are – a covering letter and tracked changes document would have been useful, indeed, are essential, also a document that can be searched and elements copied’.*

All relevant submission materials are made available on ESC Public Access for interested parties to review in a timely manner. Interested Parties are advised to set up automatic notifications to received updates relating to planning applications of interest to them.

9.32 TASC submission 5 January 2024 – *‘We noticed additional errors/omissions:- Para 1.1.2 Requirement 19 is not set out in DCO document REP7-007, as is stated’.* ESC refers TASC to Requirement 12B (now Requirement 19) ‘Main Development Site Marine Infrastructure’ on page 75. No further action.

*‘Para 1.1.8 refers to comments from ESC – which comments?’* ESC has been working closely with the Applicant and statutory consultees to address relevant matters raised during the consultation process. As TASC will be acutely aware, this resulted in enhanced iterations of the submission report being submitted by the Applicant as part of the discharge process to meet ESC’s expectations as discharging authority.

*‘We question the statement in para 2.3.1 that the design life was extended to 2140 in September 2021 to accommodate a change in spent fuel strategy- we are not aware that there was a new strategy – as far as TASC are concerned the change was because the original timeline was totally inadequate’.* TASC’s opinion on this matter is noted.

9.33 TASC submission 5 January 2024 – ‘We note that there is no reference to the Environment Agency (EA), the Marine Management Organisation (MMO) or Natural England (NE) having been reconsulted. Given the importance of these proposals, TASC believes that it is imperative for these organisations to be contacted again. As mentioned in TASC’s response to the October 2023 application documents, we consider it important that the Office for Nuclear Regulation (ONR) and Sizewell B (SZB) are consulted on DoR19’. ESC has already responded to the ONR point in this report. The organisations stipulated for consultation by the Secretary of State within DCO Requirements 12 and 19 were consulted more than once throughout the consultation period regarding ESC’s proposed requests for submission document amendments and/or comments/queries. The organisations worked proactively with ESC as part of that process. RSPB, NE and SCC PRoW also provided feedback which has been fully considered by ESC.

9.34 ‘These proposals do not constitute a final design. - Requirement 19 states in para 3) “Work No. 1A(l) (permanent beach landing facility), Work No. 1A(m) (soft coastal defence feature), Work No. 1A(n) (permanent hard coastal defence feature, preceded by a temporary hard coastal defence feature), and Work No 1A(aa) (temporary marine bulk import facility) must be carried out in accordance with the approved details.[emphasis added]” The implication of the above paragraph is that the stated Works can commence once the designs are approved by ESC ie once the conditions set out within Requirement 19 have been met. However, it is clear from this document that there are many important details that need to be finalised before the stated Works should be allowed to commence. Hence, with so many details still needing to be finalised, it logically follows that Requirement 19 cannot be discharged by ESC because these proposals are not the final design. The following references found in this document unequivocally demonstrate that these proposals are not the final design, as SZC Co (the Applicant) clearly state that changes will be made:-

- Para 1.1.4 refers to ‘the final design’ being ‘reserved for submission and approval under Requirement 19’;
- Para 3.1.3 refers to ‘The intended approach...is to investigate local protection of...’ and ‘The latest position...’
- Para 3.1.5 refers to the possibility of ‘changes made during detailed design’;
- Para 3.3.5, refers to the extent of ground improvement required for the sea defences (including the Northern Mound) and SSSI Crossing being confirmed at detailed design stage;
- Para 3.6.3 talks of waiting until the detailed design stage with regard to the positioning of the southern roundhead and possible tie-in with the existing Sizewell B (SZB) sea defences – TASC consider it totally unacceptable at this stage to not have such important aspects of the sea defences finalised and, where relevant, agreed with SZB;
- Para 3.12.20 refers to more detailed design proposals for ground strengthening, slope stability and soil liquefaction, needing to be carried out;

*These references make it crystal clear that uncertainties and circumstances exist which could or will affect the final design and it would therefore be irrational for ESC to discharge Requirement 19 based on this application when SZC Co itself acknowledges that the designs are yet to be finalised’.*

It has been confirmed that some design information is outstanding and that some design information may change before construction. The wording of Requirement 19 does not oblige SZC Co. to submit a ‘for construction’ level of detail. The level of detail provided to date exceeds the minimum level required by those terms. Furthermore, in the context of Requirement 19, ESC’s primary consideration relates to those parts of the marine infrastructure design that have potential to affect coastal processes. To discharge Requirement 19, the Applicant was required to submit details of the layout, scale and external appearance of the proposed marine infrastructure associated with the Sizewell C project. The Applicant’s submission materials seek to demonstrate that the proposed marine infrastructure is in general accordance with the design principles set out in Chapter 5 of the Main Development Site Design and Access Statement as well as in accordance with the Main Development Site Operational Parameter Plan – Operational Platform (SZC-SZC100-XX-000-DRW-100043); and include a monitoring and adaptive sea defence plan that sets out the periodic monitoring proposals for the sea defence features, their effects on coastal processes and the trigger point for when the crest height of the sea defence would need to be increased to 16.9m (AOD). The Applicant’s submission materials to be discharged under Requirement 19 (with reference to the CPMMP

discharged under Requirement 12) demonstrates that the proposed marine infrastructure meets these requirements.

Regarding the potential change in plan position of the southern HCDF, ESC will assess the proposal based upon current information. If the design changes propose a more landward HCDF at the south end, it will be assessed as a Variation request at that time. ESC is satisfied that the information submitted to date is sufficient to allow an assessment to be made. Note that Design Report Section 3.1.5 requires all Marine Infrastructure design changes to be submitted for approval by ESC in consultation with MTF partners.

9.35 *'The intention of the Applicant (SZC Co) to develop a new spent fuel strategy clearly represents a material change to the approved SZC DCO project. This is set out in Para 3.1.3 which states that 2140 is now the intended date by which 'all nuclear fuel is removed from the operational station and moved to the ISFS' and further states '...that all nuclear fuel will be removed from the ISFS to the Geological Disposal Facility by 2160...'. Bearing in mind the Applicant's DCO documents (APP-189 para 5.1.5) advises that it would take approximately 5 years to decommission the ISFS, the current proposal is a 25 year change (from 2140 to 2165) in the timeline ie a material change to the approved SZC DCO'. ESC considers comments on the management of the ISFS to be a Nuclear Safety matter outside of the scope of this discharge, it should be referred to the ONR.*

9.36 *'Para 3.1.3 also states 'the intended approach...is to investigate local protection of the interim Spent Fuel Store such that the entire SZC site does not require such stringent protection from coastal flooding'. This would also be a material change to the approved SZC DCO as the intention is that the 'Performance of the HCDF can then be relaxed once all nuclear material is removed from the operational station and moved to the ISFS (by 2140)'. This proposed change to the spent fuel strategy suggests that the SZC site cannot be kept safe for its full lifetime making it imperative that these changes are treated as a material change to the approved SZC DCO, so they can be fully and properly scrutinised'.*

The ESC understanding of text in Design Report Section 3.1.5 is that the default position is for the HCDF to be fully maintained, potentially with an adapted profile, until the ISFS is removed from site around 2160. Meanwhile SZC intends to investigate an option to provide local flood protection to the ISFS that would allow the level of protection required by the HCDF to be reduced. If this is found to be viable, SZC must then seek approval for this change from the SoS via the Decommissioning and Waste Management Plan. TASC's interpretation as described above concludes that this 'intent to investigate' extends to an admission that the SZC site cannot be kept safe for its full lifetime. In ESC's view this is not a reasonable conclusion to draw from the SZC information. Once again this is a Nuclear Safety matter and so should be referred to ONR. Note that avoidance of the need to adapt the HCDF, that includes a seaward movement of up to 17m, would produce a benefit to longshore sediment transport.

9.37 *'It is essential that the SZC site and access route can be protected for its full lifetime i.e., until all the spent nuclear fuel is removed from the site and the ISFS is decommissioned (2165, as derived from SZC Co's current submission plus the 5 years mentioned previously). The duration of the design life of the sea defences is intrinsically linked to the Decommissioning and Waste Management Plan (DWMP). It is not appropriate to wait until a future decommissioning plan is developed to determine the full lifetime of the site. It is clear that the new spent fuel strategy, incorporating the timeline for the DWMP and arrangements for the safe storage of spent fuel, need to be agreed before Requirement 19 is discharged. If it is not, future generation could be left with a 60-year accumulation of spent nuclear fuel and no effective flood defences to protect it. Such a situation would be morally indefensible, especially in light of the statement to be found at Para 5.2.4 of the Applicant's DCO document APP-189 which recognises that the site needs to be 'decommissioned in a safe and controlled manner, and not left to pose a hazard for current and future generations'.*

ESC's response to the Nuclear Safety concern has already been covered in the above Items.

9.38 *'Para 3.1.5 claims that any design changes to the current proposals, once approved, would be treated as 'a variation to Requirement 19' but the above 25-year proposed change to the timeline is an example of*

*how SZC Co's proposed changes are of such significance that they should be treated as a material change to the approved SZC DCO, not merely a variation to Requirement 19. One such further material change is already hinted at by SZC Co in these current proposals at Para 5.2.1 where it suggests a reduction from the DCO parameter of a design life of the sea defences from 2140 to 2120. It states that this is due to "accounting for climate change over this period" – this requires explanation as it appears to be saying that the site cannot be kept safe beyond 2120. This application for discharge of Requirement 19 has only reinforced TASC's view that SZC Co's plans are inchoate, having been poorly thought through – the October 2023 DoR19 application stated that the design life of the sea defences was 2120 and without any explanation or justification it submits this further application moving the design life back to 2140 with a suggestion that they might change their minds back again to 2120. It looks distinctly like SZC Co cannot demonstrate that the SZC site can be kept safe for its full lifetime and its attempts to disguise this unavoidable but unwelcome reality have resulted in this flip-flopping of its proposals. The question that needs to be answered urgently is, has SZC Co completed further flood risk modelling since they stated that the sea defence design life was 2120 in their October 2023 DoR19 application, to justify a 20-year extension to 2140 in this document?'*

ESC notes that this is a query regarding the adequacy of the flood defence design. Once again this is a Nuclear Safety matter and not one that affects coastal processes. ESC's concerns regarding the design life change are covered in our response to Item 9.28.

*9.39 'The positioning and design of the proposed sea defences have adverse safety implications. These proposals are not a complete design profile for the sea defences. The uncertainties surrounding the current SZC co.'s proposals represent real risks to the safety of local and wider communities. Paras 5.2.1 and 5.2.2 refer to the lifetime of the site. As mentioned above, due to the need to ensure the spent nuclear fuel stored on site is kept safe, the full lifetime of the site needs to be defined and agreed before Requirement 19 can be discharged. TASC's comments about this issue are set out above so there is no need to repeat them here'.*

ESC advises that matters relating to the management of spent nuclear fuel are the responsibility of the ONR and are not for consideration by ESC under Requirement 19.

*9.40 'With reference to the claim in para 5.2.2 that the site can be kept safe because the sea defence 'is designed so that its height can be adaptively increased in time to maintain adequate protection of the Sizewell C site over its lifetime', TASC maintain that this does not reflect the potential rapid changes that could result from climate change, such as passing one or more of the major 'tipping points'. Taking a decade to plan and install the higher adaptive sea defences (para 5.4.4) could be too late'.*

ESC advises that this is a Nuclear Safety matter to be considered by ONR.

*9.41 'This also ignores the comments made in our 17th November 2023 submission, insofar as if sea level rise etc are at a point when the height of the HCDF needs to be raised, this will also be a time when the sea will have breached the soft coastal dunes to the north of the SZC site meaning that the SZC site will be vulnerable to flooding from the west. Figure 3.6 illustrates that sea level at the height shown (triggering the need for the adaptive design) would clearly flood the site if it approaches from the west. The only protection of inundation from the west is the 7.3 metre height of the platform. In discussions with the ONR, we know that the regulator is aware of this potential issue, the result of which could be the need to build flood protection on the western boundary. Due to the shortage of space on site, this would probably involve building further into the Sizewell Marshes SSSI and the AONB, the impacts of which have not been assessed'.*

Consideration of how the design has assessed and responded to the risk of flooding is a Nuclear Safety matter to be considered by ONR.

*9.42 'Para 3.4.11 refers to coastal geomorphological processes, but only in front of the SZC site. TASC have seen no reference to such processes just to the north of the site and the risk of flooding arising from breach of this low-lying soft coast'.*

Consideration of how the design has assessed and responded to the risk of flooding is a Nuclear Safety matter to be considered by ONR.

9.43 *'Para 3.6.2 states that 'numerical modelling indicates this narrower section of the SCDF [in front of the southern roundhead] has sufficient volume to provide protection against 1 in 10,000yr storm events' but it needs to confirm this remains the case when the SZB salient is lost once SZB ceases operations. Being a narrower section implies a sharper gradient – has this been assessed as being acceptable to/safe for recreational users? Siting the southern roundhead on the SZB salient will produce a greater risk that the HCDF will be compromised especially as that part of the coast is likely to revert to a natural bay'.*

SZC Co. is obliged to maintain the SCDF over the full HCDF frontage. The predicted range of beach gradients to be delivered by a managed SCDF is described in Design Report Section 3.10.9. The range is described as within natural variation and so should not create an unacceptably steep face for beach walkers.

9.44 *'In paras 3.6.3 and 3.6.4 SZC Co make it clear that the plans for the tie-in of SZC's sea defences with SZB's sea defences have not been finalised and are 'subject to acceptance by SZB'. Requirement 19 should not be discharged until SZB's position on this issue has been advised to ESC – which is why ESC should consult with SZB'.*

This point is responded to in Item 9.34 above.

9.45 *'Para 3.10.12 provides details of the various layers of the SCDF confidently predicting that the HCDF will not be impacted. TASC consider this complacency ignores the numerous examples of the unforeseen impacts of climate change over the last few years. In TASC's opinion, Sizewell C is an unacceptably risky development to install and expect to be kept safe from unforeseen ravages of climate change over its full lifetime on such a vulnerable coastline'.*

The DCO has given approval for the SZC development including acceptance that the SCDF is a viable mitigation measure.

9.46 *'TASC have concerns that Para 3.3.4 does not state whether the THCDF will be installed before the existing Northern mound is due to be removed. The THCDF needs to be in place before removal of the existing Northern Mound, otherwise SZB's flood defences would be compromised'.*

Consideration of how SZC has assessed of flood risk to the Nuclear site is a matter for the ONR.

9.47 *'TASC have seen no evidence that consideration has been given by SZC Co to the Bent Hills and Northern Mound being part of the legal requirement for mitigation as part of the SZB planning permission. TASC suggest that ESC should satisfy themselves that there are no legal requirements for the Bent Hills and Northern Mound to be retained as part of SZB's planning permission'.*

ESC advises that the SZC DCO constitutes a new 'planning chapter'. This means that any associated mitigations are now governed by the DCO, not the SZB permission. Whilst the SZB station remains operational and continues to operate under its planning consent, clearly where there is interface between the two projects, from a planning perspective the DCO requirements replace any pre-existing planning conditions as part of the switch to the new chapter. It is not agreed that conditions attached to the SZB permission (or indeed any other historic permission that falls within the Order Limits) would or could have the effect of impeding development under the DCO and/or restricting ESC's ability to discharge requirements attached to the same.

9.48 *'This application refers to proposals that have the potential to cause harm to designated sites that were not considered in the approved DCO - TASC are aware that ESC will need to be mindful of their new responsibilities that came into force on 26th December 2023 under the Levelling-up and Regeneration Act (2023), which obligate statutory bodies 'to further the purpose of an AONB', rather than just pay regard to*



*its purpose, when considering any projects that will have an impact on an AONB. TASC suggest that the new spent fuel strategy may involve impacts on the AONB if SZC Co decide to have localised flood protection of the ISFS. These plans would not have been considered in the approved SZC DCO and could have had implications for the planning balance. The ISFS is currently planned to be built on the western edge of the site. Given the obvious space constraints that exist on site, there may be a need to encroach further into the Sizewell Marshes SSSI/AONB to provide localised flood protection for the ISFS. Without full consideration of SZC Co's new spent fuel strategy in relation to the discharge of Requirement 19, the potential impacts on the AONB will not be assessed'.*

If and when SZC Co. prepares a proposal for a new Spent Fuel strategy, then it must consider all relevant legislation current at that time.

*9.49 'The considerations set out in section 3.12 merely serves to support TASC and other interested parties' opinion that the SZC development is clearly too big for the available site. SZC Co, in Figure 3.1, should have shown the 'green line' eastern limit of development set out and agreed in the Layfield SZB inquiry report. TASC have attached details of the green line referred to in para 98.7 b) of the Layfield inquiry into SZB which states that 'In accordance with the Undertaking given in 1959 no permanent structures should be placed East of the [green] line[shown in Fig.98.2] in order to protect the area of the dunes and the beach'. The sea defences, as currently planned, will breach the SZB green line undertaking. TASC suggest that ESC should satisfy themselves that there are no legal requirements retained as part of SZB's planning permission, that restrict permanent development to the west of the green line. Building to the east of the green line will destroy the dunes and beach (including the vegetated shingle) that the undertaking was put in place to protect'.*

The DCO approval for the Sizewell C project supersedes this requirement.

*9.50 'Should ESC discharge Requirement 19 prematurely and the related Works commence only to have to cease if the ONR refuse to give SZC a nuclear site licence due to the inadequacies of the flood protection measures, then unnecessary harm will have been inflicted on the AONB. This avoidable harm would be in contravention of ESC's responsibility to ensure development furthers the purpose of the AONB and would leave the authority vulnerable to legal action. So, it would be prudent for ESC to only discharge Requirement 19 once the ONR have confirmed that they are happy with the flood protection measures and safety of the site for its full lifetime'.*

As stated earlier in this report, the design information submitted in Requirement 19 is sufficient to allow an assessment of the potential impact of the development and associated Marine Infrastructure works on coastal processes. This is ESC's responsibility in compliance with the requirements set out in the DCO. The ONR point has already been addressed.

*9.51 'TASC note that, at this late stage of the proceedings, SZC Co have finally acknowledged that spent nuclear fuel will remain on the Sizewell C site until 2160. It is therefore imperative for SZC Co to prepare a new spent fuel strategy combined with a final design of the sea defences modelled to 2165 (which takes into account the new 2160 timeline and the time taken to decommission the ISFS). Without this and for all the reasons stated above, TASC are of the opinion that the application for the discharge of Requirement 19 should be refused'.*

ESC response is covered by Items 9.35 and 9.36 above.

For Item 9.52, refer to main body of report.

## **10 RSPB**

For Item 10.1 and Items 10.3-1.8, refer to main body of report.

*10.2 'Northern Mound and Haul Road - Reference to the need to determine the extent of ground improvement in relation to the Northern Mound at the detailed design stage (as reference in item 3.3.5) along with reference that the exact extent of ground treatment shown on these sections will be developed at detailed design stage (item 3.7.4). Without this detail we cannot be reassured that impacts on our land will not arise'.*

ESC notes that the design should be assessed as submitted. If it is amended later then under clause 3.1.5 of the Design Report the changed plans are required to be resubmitted by SZC Co. for consideration and approval by ESC, this will include consultation.