

Monday, 1 November 2021 12:03:17

Please find in the table below the SZC responses to the remaining EA Info mat on Requests.

Request	EA Request	SZC Response
1	For consideration of the impact of waste stream A as part of the determination of the SZC WDAs permit application, please provide explanation why the 3°C thermal exceedance period for smelt changed from 7% to 4.6% with a TR302.	As noted by the EA Rev. 1 and Rev. 2 of TR302, the percentage of smelt mortality that the 25% thermal exceedance threshold is exceeded or smelt is 6%. In the previous version (Rev. 3) of TR302, the same value is quoted as 7%. The difference in the two figures relates to the smelt mortality period: 6% includes February to April inclusive, 7% includes February to March only (exclusive of April). As details in the Executive summary amendments to the permit, barriers to smelt migration on section ( 2.3.3) were made following meetings with the EA in December 2015. Details only within the DCO submission, the EA have raised questions regarding Smelt and thermal avoidance thresholds. BEEMS SPR101 (submitted as part of responses to Schedule 5 request No.2) has further information on Smelt and reaffirms the February through April period (inclusive).
2	Please confirm if the copy of TR302 supplied with the SZC operational WDAs permit application as effective (BS) with an Appendix E) is edit on 3 revision 5, or edition 3 revision 6.	Due to the time since the first release (2011) the document number given between the EDF and BEEMS systems is out of sync. The report should formally be referred to following the EDF numbering on page 1. The report is Edition 3, Revision 5.
6a	We need to discuss the potential for the two cooling water (CW) and two fish recovery and return (FRR) outfalls to be not as intended by the SZC as part of the WDA permit submission. The effect, please can you confirm if there are any additional diagrams and/or dimensions on data for the proposed SZC operational CW and FRR outfall structures available for reference?	There is no further information available at present. The main cooling water outfall will be the same as at HPC, there are the EA has all the known schematics on this. There is no further design information on the FRR outfall at this time. What can be noted at this time is that it will inevitably be similar to the design at HPC, but may be on a smaller scale accounting for the smaller diameter of the tunnel (as per below).
6b	In response to information request 31(e) of the SZC WDA Schedule 5 No 2 notice, a copy of the following Hinking Point C (HPC) report was provided: HPC Cooling Water Infrastructure Feasibility Report on Measures Report to Discharge DCO equipment CW and Marine Licence Condition 5.2.3.1, March 2016. This report has been referenced in the SZC WDA space for certain aspects of the infrastructure of the HPC (as intended to be adapted) applied at SZC. Please can you confirm if any of the data is regarding the CW and/or FRR outfall designs/dimensions referenced within the HPC CW1 report are applicable to the SZC operational CW and FRR outfalls? If so, please confirm in writing which details. The potentially relevant sections from CW1 we have identified to date are referenced below.	<b>Section 9: Cooling water outfall (pages 72 to 84)</b> • 9.1 (General description) As for HPC. • 9.2 (Location of outfall) Same principle but further offshore. HPC outfall is ca 2km offshore whereas SZC will be ca 3km. • 9.3 (Outfall tunnel) Same principle but larger diameter. HPC internal diameter is 7m whereas SZC will be 8m. The larger diameter is required to offset headloss caused by the longer tunnel. • 9.4 (Outfall shaft) Intention is as for HPC but bc. • 9.5 (Outfall head structures) Intention is as for HPC but bc. • Figure 38 (3D view of the CW outfall structure) Intention is as for HPC but bc. • Figure 39 (section through CW outfall structure) Intention is as for HPC but bc. • Figure 40 (plan view of CW outfall structure) Intention is as for HPC but bc. • Table 12 (dimensions of the CW outfall head structures: overall length = 9.26m, width at back = 6.58m, height = 3.2m and width at front = 10.45m) Intention is as for HPC but bc. <b>HPC CW1 - outfall structure details</b> • 8.1.34 to 8.1.39 and figure 34 (Fish return system (HCF) outfall structure, pages 73 and 74) Design will replicate HPC where possible but FRR tunnel has smaller diameter. Design bc. • 16.1.4 to 16.1.5 (Return to sea (HCF) - Compliance with EA Criteria, page 139) In general, yes, though the system has marked (beneficial) differences as each HCB by design will discharge direct to sea. Gutter diameters and radii may vary slightly but will remain compliant with EA (2010). Instead of a single outfall of 0.9m internal diameter (i), SZC will have 2 separate tunnels of ca 0.65m diameter. (i) will not apply either directly either due to different spacing locations of the FRR tunnels but will remain compliant with EA (2010). • Section 17: 17.1.1 to 17.1.13 (Outfall head) - Compliance with EA Criteria, pages 139 and 140) To note - Section 17 provides details for the outfall. It is not the FRR. There is no separate description or assessment of the FRR outfall head. Section 17, although some design features differ (e.g. location offshore) the SZC cooling water outfall remains compliant with all elements of EA (2010) based on the lack of bars across the outfall (see 17.1.4(iii)). As explained at 17.1.6-17.1.13 bars are not possible and do not affect the impact assessment.

It is understood standing these responses close out all the active EA IRIS for the WDA. Please let us know whether you believe this assessment is incorrect, or if you have any questions on the above.

Best,  
 [Redacted]

[Redacted] / s/m  
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