PLEASE NOTE VENUE

PLANNING COMMITTEE AGENDA

HARTLEPOOL
BOROUGH COUNCIL

Friday 5 October 2007

at 10.30am

**in The Borough Hall,
Middlegate, The Headland, Hartlepool**

MEMBERS OF PLANNING COMMITTEE:

Councillors Akers-Belcher, Allison, Brash, R W Cook, S Cook, Flintoff, Kaiser, Laffey, G Lilley, J Marshall, Dr Morris, Payne, Richardson, Simmons, Worthy and Wright

1. **APOLOGIES FOR ABSENCE**

2. **TO RECEIVE ANY DECLARATIONS OF INTEREST BY MEMBERS**

3. **ITEMS REQUIRING DECISION**

   3.1 Planning Applications – *Assistant Director (Planning and Economic Development)*
   1. H/2007/543/544 and 545 - Able UK Ltd, TERRC Facility, Tees Road, Graythorp, Hartlepool.

   3.2 Hazardous Substances Consent - *Assistant Director (Planning and Economic Development)*
   1. H/2007/0542 - Able UK Ltd TERRC Facility Tees Road Graythorp Hartlepool Hartlepool

No:	1
Number:	H/2007/543/544 and 545
Applicant:	Able UK Ltd TERRC Facility Tees Road Graythorp Hartlepool
Agent:	Blackett, Hart & Pratt LLP, Westgate House, Faverdale, Darlington, DL3 0PZ
Date valid:	25th July 2007
Development 1: 543	Extend the current use of the site to include the construction, repair, refurbishment and decommissioning of all types of ships, vessels and other craft as described more comprehensively in the EIS. Operational development consisting of the construction of quays 1, 6, 10 and 11; refurbishment of quays 7, 8 and 9; construction of cofferdam; construction of new dock gates; installation of railway track; construction and operation of metal recycling facility; erection of industrial buildings for the manufacture of wind turbines; erection of warehouse buildings; construction of two holding tanks in connection with the drainage design; construction of sump in the dry dock basin; construction of temporary secondary clay bund in the dock basin; dredging works being carried out within the dock basin and above the low waterline and engineering works associated with the construction of the mooring bollard and sheet piling structure to protect the British Energy power station foreshore.
Development 2 544:	Construction of cofferdam at entrance to dock (option 1)
Development 3 545:	Construction of cofferdam at entrance to dock (option 2)
Location:	Able UK Ltd TERRC Facility Tees Road Graythorp Hartlepool Hartlepool

1. **Introduction**

1.1 Able UK Limited is seeking a range of permissions from the Local Planning Authority (LPA) for the various developments described above. Each application is dealt with as part of this single report due to the interrelated nature of what is proposed.

1.2 A further related application for Hazardous Substances consent is reported elsewhere on this agenda.

1.3 The main body of this report focuses on a summary of the various consultation and publicity responses followed by an assessment of relevant planning considerations. The impacts of this project and where relevant any mitigation measures are summarised in tabular form. The report concludes that with various conditions and a planning agreement to secure appropriate levels of mitigation, the developments proposed will be acceptable.

1.4 The report incorporates 6 lengthy appendices:

1. Appendix A is an extract of the readers guide taken from the Environmental Statement. The intention of the readers guide is to highlight the main changes that have occurred since the Environmental Statement submitted as part of the previously refused applications.

2. Appendix B sets out in some detail the description and rationale for the project as provided by the applicant within the Environmental Statement.

3. Appendix C focuses on the predicted environmental impacts of the various elements of the project which are summarised in tabular form earlier in the report. The information is substantially copied from that provided by the applicant.

4. The Habitat Regulations require that where a project is likely to have a significant effect on a conservation site of international importance, the LPA undertakes an 'appropriate assessment' to specifically determine the effects of the development on this site. On 17 August 2007 Natural England determined that the project was likely to have a significant effect which meant that the LPA were obliged to undertake an appropriate assessment of the project alone and in combination with other projects in order to determine whether it would have an adverse effect on the integrity of the Teesmouth and Cleveland Coast Special Protection Area (SPA). The LPA's appropriate assessment is provided at Appendix D. The assessment considers the effects of the project in terms of the magnitude of habitat loss, fish mortality, siltation, noise, visual and odour disturbance, toxic contamination, nutrient enrichment and the threat to ecology from invasive species. It concludes that with appropriate planning conditions and obligations to secure mitigation measures the project would not either alone or in-combination have an adverse affect on the integrity of the SPA.

4. Also attached is Appendix E which summarises technical information contained in the environmental statement and provides background to the findings in the appropriate assessment.

5. The applicant's Conservation Management Plan is attached at Appendix F. .

1.5 An Environmental Statement was submitted to accompany the three applications. This effectively updated the previous Environmental Statement that accompanied the recently refused applications on this site. Those applications are due for consideration at a Public Inquiry commencing 9th October 2007. The LPA previously issued a formal statement to the applicant detailing the range of issues that would need to be considered as part of the Environmental Impact Assessment. This document, known as a 'scoping opinion' was issued on 28 January 2004. The similarities of the current applications with that considered under the previous scoping opinion have not triggered the need for a fresh scoping opinion.

1.6 There have been ongoing discussions with the applicant various statutory regulators and the Council's consultants, Scott Wilson Ltd, which have lead to the current resubmissions.

The site

1.7 The site known as the Teesside Environmental Reclamation and Recycling Centre (TERRC) was originally a shipyard dating from 1923. It has since been used as a dry dock in which offshore oil and gas structures were constructed. During the 1990s the gates enclosing the dry dock failed and the area has remained permanently flooded ever since.

2. Previous history

2.1 The planning history of the site as referred to in the Environmental Statement is listed below:-

Application No. TDC/95/10
A full planning application by Laing Civil Engineering, the then owners of the TERRC site, dated 1 February 1995, for development described as "Restoration of dock gates by means of a rock fill/sheet pile bund to allow use of dock for construction of offshore structures" at Graythorp Dry Dock, Tees Road, Hartlepool, was granted by Teesside Development Corporation on 1 October 1997, the notice of approval being issued to ABLE UK described as 'Restoration of Dock Gates and construction and removal of rock filled bund'.

Application No. TDC/96/091
Planning permission was granted to ABLE by the Teesside Development Corporation on 1October 1997, following completion of a S106 agreement, for a range of activities and development comprising:

"Dismantling/refurbishment of redundant marine structures and equipment; storage and processing of sea dredged aggregate including construction of ready-mix concrete batching plant; stockpiling of rock armour; recycling of construction and demolition waste; waste transfer facility; bulk waste material storage facility; composting facility; enlargement and refurbishment of dock and use as base for oil-related floating crane and transport barges; import and export of general cargoes; berthing facility; use of land for fabrication yard for offshore structures including structures for oil and gas exploration; exploration production platforms and accommodation modules; and for the construction of marine related structures and equipment and storage of civil engineering plant and equipment", subject to conditions.

In 2003 the question of whether the term marine structure covered ships was judicially reviewed in the High Court, which subsequently ruled that it did not. The current applications followed in the wake of that decision.

Application No. H/FUL/0462/00
A full planning application by ABLE for the erection of warehouse buildings, fabrication shops and an administration building totalling 71,550 sq. metres, and the

installation of a gantry crane, was approved with conditions by HBC on 7 February 2002.

Application No. H/FUL/0375/02
An application by ABLE for the continuance of use of the TERRC facility without complying with Conditions 9 & 10 of planning permission TDC/96/091 relating to activity close to the sea wall, and noise from activities on the site, was approved by HBC on 5 August 2002.

Application No. H/FUL/0591/03
A full planning application by European Metal Recycling Ltd for the "installation of a metal shear in connection with metal recycling operation, siting of portacabin and weighbridge and formation of 2m high bund" at TERRC, was approved by HBC on 22 December 2003.

Application No. H/FUL/0069/04
A full planning application by ABLE for a steel fabrication and manufacturing facility, temporary offices and buildings for construction staff use, lighting towers, security office and waste water/oil separation unit, was approved by HBC on 27 April 2004.

2.4 In addition, applications no. H/2005/5040, H/2005/5041, H/2005/5042 and H/2005/5878 relating to similar proposals were refused on 13th November 2006 and are due for consideration at a Public Inquiry commencing 9th October 2007.

3. The planning applications

The main application

3.1 Aside from the proposal to extend the current use of the site to allow for the construction, repair, refurbishment and decommissioning of various ships, vessels and other craft the application comprises the following proposed developments (Relevant dimensions, length, depth and height are provided where appropriate, all dimensions being in metres):-

1. The construction and refurbishment of various quays with sheet piling. The quayside immediately adjacent to the Seaton Channel would be constructed to a level of 5.2 metres A.O.D. to offset the risk of flooding. The ground level behind the quayside would be made up with appropriate fill material.
2. The construction of a cofferdam and new dock gates. There are three potential locations (and designs) for the cofferdam (see following section). There are 2 potential locations for the proposed gate. The proposed gate would be constructed to a height of 5.2 metres A.O.D. to safeguard against flooding. It would incorporate some 16 filling valves, each 1 metre in diameter.
3. Installation of a railway track. This would branch off from the power station line and would further branch into two routes either side of the dock.
4. Construction and operation of a metal recycling facility comprising a metal shear, accommodation and weighbridge facilities and acoustic barrier incorporating aggregate bund adjacent to the south west boundary of the site.

Metal shear – 23.25l x 13.11d x 5.6h
Accommodation unit - 12 l x 3.6 d x 7 h
Weighbridge – 30 l x 4 d
Acoustic barrier – 200 l x 8 h

The metal shear will be used to reduce unit size to a form suitable for recycling in foundries.

The purpose of the acoustic barrier would be to reduce the impact of noise from the metal shear on Greenabella Marsh to the west.

5. Erection of industrial buildings for the manufacture of wind turbines each to be served by adjacent concrete pads.

   The manufacture of wind turbines would take place in three separate buildings which respectively would accommodate operations for the production of blades, towers and generators:-

   Blade manufacture building – 250 l x 50 w x 17.6 h (incorporating 4 doors in each of the front and rear elevations)

   Tower manufacturing building – main building 100 l x 69w x 14.5h (incorporating doors in front and rear elevations). 2 offshoots including ancillary staff accommodation measuring some 30 l x 20w x 6h and 39.9l x 7.3w x 6h

   Generator manufacture building - 90l x60w x16.3h with offshoot 30l x 30w x 7.3h

6. Erection of two warehouse buildings.

   Building 1 - 150 l x 60d x 16.3 h
   Building 2 - 200 l x 30 d x16.3 h

7. Construction of two holding tanks in connection with the proposed drainage design for the site.

   Each tank – 90 l x 20 d x 1 h

8. A secondary clay bund and sump system is proposed within the dry dock basin. The purpose of the clay bund would be to prevent clean water that flows back into the dry dock from the Seaton Channel entering the main working area of the dry dock. Clean water would be collected in a chamber before being pumped back out into the Seaton Channel. On the other side of the clay bund contaminated water would be collected from the main working area of the dry dock in a separate chamber. This water would be pumped to the two holding tanks where it would be tested and only returned to the Seaton Channel if found to be sufficiently free of contamination in accordance with pre-determined standards to be set by the Environment Agency and

governed though their discharge consents. Contaminated water would be removed for off-site treatment at an appropriately licensed site.

9. Engineering works associated with the construction of a mooring bollard and sheet piling structure to protect the British Energy Power Station foreshore. The bollard would allow for ships arriving at quays 10 and 11 to be secured. The purpose of the sheet piling proposed to the power station foreshore would be to protect this area from potential accelerated tidal scour following the closure of the dock. These engineering operations are examined more closely in the appropriate assessment (Appendix D).

10. Dredging work being carried out within the dock basin and above the low water line. Aside from the dock basin itself it would be necessary to undertake dredging operations adjacent to the south-eastern corner of the site in order to allow the dredged pocket serving quays 10 and 11 to be formed. It is also proposed to carry out capital and maintenance dredging in sub-tidal parts of the Seaton Channel. This work is subject to separate controls outside the Town and Country Planning legislation although its impact is assessed as part of the Environmental Statement.

The purpose of the proposed cofferdam

3.2 In order to create the dry dock it would be necessary to erect a barrier across the dock entrance therefore enabling water to be pumped out. The barrier, known as a cofferdam, would have 3 potential locations (and designs).

3.3 Two of the designs consist of parallel vertical sheet piles infilled with various layers of material such as clay, alluvium and granular fill. The third option comprises a combination of cofferdam and rock bund. Each design would incorporate a removable section to allow for successive vessel admissions subsequent to the dock being reflooded. The structures would reach a height of 5.5 metres A.O.D to safeguard against flooding.

3.4 The chosen option would depend on financial considerations. The need to retain options for the cofferdam has given rise to the second and third planning applications.

3.5 The Environmental Statement states that the cofferdam is initially required for a 5 year period after which it could be reviewed if the gates have not been provided.

4. Summary of Impact and appropriate mitigation measures.

4.1 The following table sets out the key findings of the environmental statement in terms of the various impacts predicted to arise from the project. It identifies where mitigation measures are required and what these will consist of, where monitoring measures are proposed and what the overall outcome is predicted to be in terms of magnitude and duration.

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
1. Provision of compliant end of	Global	Much decommissioning	Mitigation is by design of provision of properly controlled		Wholly beneficial, in accordance

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
life vessel decommissioning facilities.		of vessels takes place in uncontrolled conditions resulting in risks to human health and to the environment. Many British flagged ships have been dismantled in these conditions.	compliant conditions for decommissioning vessels in the UK		with aspirations of the House of Commons Committee report. Proper disposal of waste. 98% of vessel recycled.
2. Provision of fabrication facilities for wind turbines.	Global	Contribution to reduction of CO2 emissions			Strengthens UK ability in the sustainability energy market.
3. Choice of site at TERRC.	Teesmouth area, environmentally sensitive sites	Increased industrial activity. Risk of disturbance, pollution, contamination	See below for individual factors		See below for individual factors.
4. Construction and Marine related works					
4a. Risk of bank stability	Inter-tidal feeding grounds.	Potential loss of feeding grounds reducing habitat for SSSI and SPA birds	Full geotechnical survey and assessment so that stable channel banks have been designed and can be achieved Surface slope stability analysis and modelling. Deep failure mode slope stability analysis and modelling. Slope safety factors increased by adopting 1:3.5 slopes in the glacial drift and till layer. A 5m terrace incorporated into the dredging profile at the west of the holding basin.	Pre-dredging surveys and annual bathymetric monitoring will check for channel stability.	No loss of intertidal mud banks by slippage or erosion. Impact neutral
4a. Risk of bank stability (continued)		Potential loss of feeding grounds reducing habitat for SSSI and SPA birds	Geomorphology modelling and analysis to assess long term impacts. Shore defences required between Quay 11 and Power Station Cooling Water intake. Trapezoidal sheet piling training wall structure incorporated in the project design	None required	Protected shore line between Quay 11 and Power Station Cooling Water intake.
			Incipient meander formation unrelated to dredging proposals but the deepening of the Seaton Channel by dredging reduces the water velocities and slows down the formation of impact on the SPA.	Pre-dredging surveys and annual bathymetric monitoring will check for channel stability.	Long term neutral effect on the integrity of the SPA. Minor adverse in terms of attenuating erosion from the natural process

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
					of meander formation.
4b. Removal of inter-tidal mud banks	Bird feeding areas adjacent to channel.	Loss of inter-tidal mud banks will reduce food supply available to SPA birds. Removal of feeding area limited to 0.56ha of predominantly stony foreshore. This represents 0.29% of the baseline total inter-tidal area. The area is a relatively low food resource owing to its physical condition and supports a mean count of 5 birds.	A compensation scheme will be agreed with HBC in the form of a Section 106 agreement and implemented by Able to replace lost resources	The development of any new replacement habitat will be monitored as per Section 7 of the Conservation Management Plan	Impact minor adverse short term, neutral long term.
4c. Impact of sediment accretion on Seal Sands	Bird feeding areas on Seal Sands.	After the capital dredge is completed sediment accretion on Seal Sands will be reduced but the type of sediment will contain higher content of silts and clays.	No mitigation required in the medium term.	Monitoring will be undertaken to assess the SPA sedimentation during the capital dredge and bathymetry and inter-tidal slopes thereafter.	Short term minor adverse.
4c. Impact of sediment accretion on Seal Sands (continued)		Sediment budget deficit due to maintenance dredge arisings disposed of at sea. Sea level rise of 6mm per year assessed and in the long term sediment replenishment required to avoid loss of inter-tidal habitat.	Retention of maintenance dredge arisings by placing maintenance dredge materials on the north shore banks in sacrificial mounds. Specific methods to be agreed with HBC and EN.	Monitoring will be undertaken to assess the bathymetry and inter-tidal slopes before and after annual maintenance dredge.	Long term neutral impact.
4d. Tidal Propagation	Inter-tidal feeding areas.	Computer modelling by DNV concludes that tidal propagation	A 1mm rise is de minimus as hydro-graphic surveys are accurate to only +/- 25mm. The SPA area is only defined in		De minimus.

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
		will lead to a rise of 1mm in the tidal prism. On the south bank of the channel this computes to be a loss of 13m² along the 1.5km of dredging and less along the north shore.	the citation to two decimal places which means that areas smaller than 100m² are not defined within the SPA. No mitigation required.		
4e. Noise disturbance by Dredging and Piling	Feeding birds on the SPA and SSSI mudflats.	Disturbs feeding birds which fail to gather the food supplies they need.	No dredging or piling +/-2 hours either side of low tide during the months of November, December, January and February.	On completion of the dredging and piling construction works one full winter season survey over the months of October through March will be undertaken for sectors DT019/DT05/DT018.	Neutral
	Seals rearing pups.	Mother and pups disturbed and become separated.	No dredging mid June to end of August +/-2 hours either side of low tide.	The INCA programme will be reviewed through TEAG.	Neutral
4f. Excessive disturbance of sediment during dredging.	Power Station cooling water system.	Management of risk factors associated with cooling water system in power station.	No dredging during spring tides (5.8m and over) in the vicinity of Quays 10 and 11.		Neutral
	Invertebrates and fish spawning season	Potential smothering of shallow water areas leading to reduced invertebrate and fish spawning and disturbance to spawning grounds.	No dredging during the critical spawning season months of February and March	Suspended solids in the channel water will be monitored during dredging	Neutral
4g. Sediment contamination within dock	Fish and marine life and invertebrates in intertidal mudflats	Capital dredge will cause partial resuspension of sediments	Pre-dredging sampling and testing shows contamination levels to be similar to that elsewhere in Tees River Estuary and on Seal Sands SPA.	Monitoring and testing complete.	Impact moderate/minor adverse, short-term, neutral long-term.
4.h. Sediment contamination within channel	Fish, marine life and invertebrates in intertidal mudflats	Capital and maintenance dredging will cause partial resuspension of sediments.	Pre-dredging sampling and testing shows contamination levels to be similar to those elsewhere in the Tees River Estuary and on Seal Sands SPA.	Pre-capital dredge, sampling and testing complete.	Impact moderate / minor adverse, short term, neutral long term
4.i. Site Flooding	TERRC site.	Risk to site staff. Dispersal of temporarily stored	Constructed works along channel frontage designed to 5.2m AOD. Contaminated waste storage areas to be		Risk of 1 in 200 year flooding eliminated.

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
		contaminated wastes.	bunded against flooding.		
4.j. Surface Water Drainage	TERRC site and Seaton Channel	Harmful to fish and marine life.	Purpose designed drainage system.	Monitoring as required by EA to comply with Discharge Consents.	Impact neutral.
4.k. Foul Water Drainage	Seaton Channel	Harmful to fish and marine life, algal growth on Seal Sands.	Primary treatment on site before discharge. Substantial volume dilution in channel.	Discharge monitored as required by EA to comply with Discharge Consent.	No significant impact
4.l. Bio-security	Regional	Introduction of alien species, parasites and pathogens which may harm native stocks of fish, invertebrates and crustaceans.	Inspection and Risk Assessment at the holding port for every ship bound for TERRC. Risk assessment results will inform transit decision, bio-security measures to be undertaken, and protocols.	Monitoring as per TERRC Compliance Plan.	No significant impact
5a. Visual and noise disturbance to Greenabella Marsh.	Common terns and other birds.	Disturbance causing species in the citation to move away.	Construction of shear acoustic and visual barrier. Noise levels on nearest part of SSSI reduced to ambient.	Noise monitoring on Greenabella Marsh to check predictions and to confirm barrier size.	Minor adverse long term.
5b Visual and noise disturbance to SPA	Birds on the SPA.	Feeding by protected birds interrupted.	Trials carried out in 2001 indicated no disturbance to birds. No mitigation needed. Access to the site will be restricted by the maintenance of site security.		Neutral long term.
6. Disturbance of ditches and wetland areas along north eastern margin of site.	Amphibians.	Disturbance if any amphibians or reptiles present.	Pre-construction survey to be carried out and replacement habitat to be developed.	Any habitat replacement to be monitored as per Conservation Management Plan	Short-term minor adverse. Long-term neutral.
7. Disturbance to neutral grassland on sand dumps at TERRC site.	Neutral grassland.	Vegetation destroyed.	Sand dumps will be incorporated in the proposed acoustic barrier and grass re-established there.	Any habitat replacement to be monitored as per Conservation Management Plan	Short-term minor adverse effect. Long-term neutral.
8. Delivery of vessels, etc to TERRC.	High seas, Teesmouth, Seaton Channel.	Vessels may cause spillages and leaks, causing maritime incident.	Vessel surveyed at point of departure, does not depart unless seaworthy to satisfaction of Coastguard agencies and insurers. Survey to include inventory of all wastes to ensure TERRC has capacity to handle all materials safely before they arrive.	As per Compliance Plan	Risk of incident same as with any shipping. Teesport has an excellent safety record. However, in the case of a major incident the consequences

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
					could be serious, but not as serious as it would be the case with laden ships.
9. Greenhouse Gas Emissions	Atmosphere.	Climate change.	TERRC will minimise the use of oxygen / propane torches for metal cutting and will use shearing techniques. The recycling of 200,000 tonnes of steel means that 350,000 tonnes of iron ore can stay in the ground and not be processed in an energy demanding smelting process.		There will be some greenhouse gas emissions from plant and equipment on site and from traffic to and from the site. However these emissions are outweighed by savings generated by the reuse of steel and other recycled materials. Net effect long-term positive benefit.
10. Method of working	Seaton Channel and Seal Sands SPA.	Damage to wildlife by transfer of pollution to the SPA and SSSI. Impact on groundwater. Pollution of the channel when the dock is re-flooded.	All processes where there is a potential risk of loss or spillage of polluting or contaminating materials e.g. ship decommissioning will be undertaken within a confined dry dock. The dock floor will be cleaned out, checked to ensure it is impermeable, or made impermeable, tested and if approved by the EA, flooded to allow entry of a new cycle of ships.	As per Compliance Plan As per Compliance Plan	No adverse impact on the SPA or SSSI from harmful substances. No significant risk of pollution to groundwater, or to the channel water.
11. Dust emissions	Personnel on site, nearby environments.	Human health and contamination of ecologically sensitive areas.	No risk to local human population. SPA not at significant risk owing to distance. During dry windy periods with strong north or eastwards, dust management will be implemented involving restrictions on vehicle speeds and dampening roadways. PPE available for staff.	Dust monitoring will be undertaken at the site boundaries	No significant risk to human health, on site or off site. Ecologically designated areas not at risk.
12. Lighting	Birds on the SPA and SSI roosting sites.	Light spillage from the existing lighting towers was unmeasurably low.	All lighting to be directional into the site. Progressive conversion to sodium lights.		Neutral.
13. Socio-economic Issues	Local and regional image.	Effect on image and environment affecting local economy. Effect on local economy by provision of 749 jobs.	Detailed Environmental Impact Assessment shows no significant adverse long-term effects to the environment.		Neutral impact on local image or economy. Long-term positive impact.
14. Traffic	Local and regional roads	Congestion and road safety	Existing consent levels for Traffic not exceeded.		Reduced traffic

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
			Commitment to Green Traffic Plan.		
15. Airborne matter and Odour	Personnel on site, nearby environments.	Site staff and nearby human health.	To reduce air emissions decommissioning of ships will employ a combination of hot (burning methods) and cold techniques (shearing methods). PPE available for staff. Remediation of wastes will be in accord with the compliance plan as regulated by the EA under the waste management licence (WML).	As per Compliance Plan	No significant risk.
16. Landscape and visual impact	Receptor locations in surrounding landscape	Generally negligible or minor adverse. View from Greenabella Marsh and Teesmouth Field Study Centre moderate adverse during construction, minor in long term. Minor adverse significance at Power Station Hide			Same short term moderate adverse (during construction) long term negligible or minor adverse only

5. Publicity

5.1 As a result of the various publicity exercises some 1153 objections have been received in relation to the planning applications and accompanying documentation. These comprise 389 responses on the Hartlepool BC Occupier response form, 12 individual letters, 2 emails, and 750 in a number of standard formats signed by individuals. The objections include 4 petitions containing 48 signatures.

5.2 The objections raised are summarised below, grouped under headings for convenience. This list reflects a summation of the issues raised over the life of the applications and are not listed in any order of priority. The significance of the concerns raised is given consideration later in the report:-

Health

1) A common objection is that the area already has poor health as measured by national indices. There appears to be a perceived link between old industries and poor health, and a view that the Able proposals would further damage the health of the area both presently and for future generations.
2) Concern with regard to the impact of toxic waste on human health (asbestos related diseases / children's' development etc. The proposals

should be located away from large population areas. It will lead to an increase in cancer rates.

3) A common objection arises from the perceived close proximity of the proposed site to existing residential property, and the potential for impact upon heath of local residents.
4) There are re-current concerns as to the impact from noise, dust and from the proposed operations and their impact upon residential properties in close proximity.
5) There is a common concern at the legacy that would arise from granting consent to Able for this proposal.

Contamination / Pollution

1) There should be no dumping of materials at Seaton Meadows which could become a toxic marsh.
2) Toxic waste should not be allowed to go to Seaton Meadows as it falls within 1 km of the tide line.
3) Groundwater could become contaminated. The high water table in this area will have an adverse affect. Waste could leak from Seaton Meadows.
4) Disposal of asbestos at Seaton Meadows is a present and ongoing concern.
5) The site could take thousands of tonnes of waste which could have a devastating effect on human health in the long term.
6) The potential for air pollution as a result of dust arising from the project is perceived as being high. Objections have ranged from general concern over noise and dust, through to specific concerns over airborne asbestos particles and unknown hazards.
7) How will waste disposal sites be monitored?
8) There is a widespread concern at the potential impact upon wildlife, both in terms of direct impact upon marine and land animals, but indirect risk of damage to environment and habitat.
9) Pollutants stirred up by the dredging will cause damage to wildlife.
10) Dredging will threaten stability of Seal Sands, cause contamination and impact on the power station cooling water intake systems
11) Incineration / Dumping of PCBs at Seaton Meadows should never be considered.
12) The ES is inadequate as it does not explore any of the environmental impacts of landfilling of a range of toxic substances.

Image of the Town / Locality

1) Image and this project will not help to improve that image. It will be detrimental to the positive image of the town and will put tourists off. It will counteract positive publicity such as that surrounding the 'Tall Ships' It will lead to less jobs as potential employers are put off. It will adversely affect inward investment therefore leading to a net loss of jobs. The town's future is in tourism and not heavy industry. Investment in the regeneration of Seaton Carew will be wasted. The environment should not be sacrificed for jobs.

2) There will be an increase in traffic through Seaton Carew that will cause noise and fumes etc.
3) Could set precedent for all types of waste e.g. long-term storage of nuclear waste. There is a concern that Hartlepool will become known as a dumping ground for the worlds waste. Phrases such as "third world ", dustbin, etc occur quite regularly in the objections raised
4) There are a number of concerns stressing the conflict between the current proposal and the steps already taken in the regeneration of the town and wider area. The Able proposals are seen as being at odds with investment in the environment and tourism related projects.
5) It is seen as unfair that Hartlepool should be viewed as an acceptable location for the proposed use as it has suffered from a legacy of poor quality industry and damage to the environment through industrial activity and waste dumping already.
6) The site is part of the coastal wetland and would be adversely affected by the proposal.
7) There is a concern that if the proposal goes ahead then the image of the area will be damaged to the extent that further inward investment for industry, leisure or other uses will be deterred, damaging the future of the town beyond the benefits offered by the proposal.

Need for the Scheme / Applicants track record

1. Each country should do its own ship dismantling. The law requires ships to be returned at the earliest opportunity. The U.S. should not export toxic waste problems. The ships should not have been allowed to leave America before a suitable location for disposal was found. The ships should be returned. This is a test case to allow them to export around the world to the cheapest bidders. The Ghost ships are the tip of the iceberg. We need facilities to deal with our own ships. Toxic wastes should be returned to the country of origin. Hartlepool residents are recycling their own rubbish so we won't have landfill sites.
2. The need for such a facility in this location is questionable.
3. The past track record of the applicant has been questioned, and there is an apparent lack of faith in Able UK to operate the proposed facility and related operations to the letter of the law and other obligations.
4. Conditions within the existing landfill site are raised as an example of poor performance.
5. Doubts about the job claims and economic value / benefit of the scheme to the local area.
6. There will be no employment opportunities for local people. There is no demand for ship building in the UK, such jobs are created in developing nations. Fewer jobs will be created than predicted by the company. It is not right to provide work at any price.

Letters of Support / No Objection

A total of 129 responses confirming either no objection or support for the four proposals were received. Reasons give for support summarised below.

1) The proposal is viewed as an opportunity to create jobs and wealth for the local area, but also noting there is also potential benefit for the wider NE region
2) No objection provided relevant codes of practice and legislation are adhered to and enforced.
3) Providing hazardous materials are disposed of in a safe and monitored way no objection as the proposal will bring much needed jobs to the town
4) There is an opportunity to put the town on the map as a centre of excellence in a specialist field.
5) The site has one of the longest marine building and dismantling records in the area.

In addition to this, a letter of support has been received from Frank Cook MP. He states that he is convinced that the proposals will be of real benefit to Hartlepool and the wider Tees Valley

5.4 The following organisations have commented as a result of the publicity exercise.

Teesmouth Field Centre does not want to object or offer any comments.

Friends of the Earth (national):

- Waste disposal and pollution impacts associated with the site.
- Unsustainable to recycle US ships in the UK.
- Does not give sufficient weight to the cumulative impacts of the development or the long term impacts of the development on the important national and international sites.
- Refers to earlier objections submitted as part of the previous applications (as listed immediately hereafter).
- The proposal would conflict with the principles outlined in PPS9
- The ES fails to clarify phasing of works which prevents consideration of cumulative impacts.
- There is inadequate evidence that the projected loss of 1.79 hectares of habitat is of low value.
- Inadequate baseline data has been provided
- The application is premature, primarily intended to allow scrapping of large ships. The decision should await the publication of the ship scrapping strategy.
- Ship scrapping is not a matter of overriding public interest
- The application ignores vital aspects of waste policy. It fails to consider the impacts of off-site disposal.
- The application description should refer to waste management activity
- The policy support for the proposal in terms of the industrial use of the site is outweighed by ecology concerns.
- The ES has incorporated no on-site measurement or observation.

Hartlepool Friends of the Earth

- US should not export toxic waste problems which will set a precedent and result in Hartlepool becoming the destination for redundant ships from various places.
- Question how the deal went ahead
- Question job creation figures
- Would harm tourism and image of town
- Concerned about impact on pollution levels. There is already too much illness in Hartlepool.

6. Consultation

6.1 The following consultation responses have been received:-

British Energy - No objection subject to conditions to ensure that development does not to proceed until full details of the engineering operations and dredging works in the vicinity of the power station and the use of quays 10 and 11 have been deemed acceptable in terms of safe operation of the power station. Also the use of propane to be restricted in certain parts of the site

Natural England- Confirm that they will shortly be in a position to sign off the TERRC application's appropriate assessment.

1. **Environment Agency** - Raise no objection subject to various conditions to ensure environmental protection measures are in place.

Centre for Environment, Fisheries & Aquaculture Science (CEFAS) – Will comment if necessary as part of the FEPA consents procedures. Do not intend to comment further as part of the planning process.

The Highways Agency – State that their comments of the previous applications remain relevant and do not wish to offer any objections to the current applications. As part of the previous applications, the Highways Agency considered that the proposed development will not result in significant detrimental safety or capacity issues on the Highway Agency trunk road network. Views of the local highway authority should be taken into account.

North East Assembly - State that their previous comments remain the same and confirm that that the proposals were in general conformity with RPG1 and the emerging RSS, providing that a condition is included in order to ensure that activities prescribed by the Environment Agency and/or the Health and Safety Executive take place only within a dry dock environment.

It notes that the Secretary of State's proposed changes to the RSS were published in May 2007 but do not make any significant changes to policies outlining the role of Hartlepool in the region, the strategy for the regions ports or how hazardous substance waste should be addressed.

- The proposed change of use for construction, repair, refurbishment and decommissioning of a wide range of ships can justify a port use and is supported.
- The proposed change of use to allow for the manufacture of wind turbines can justify a port use and is supported.
- The construction and refurbishing of quaysides are supported.
- The Assembly accepts that some activities related to the construction, repair, refurbishment or decommissioning of ships pose limited or no risk of pollution and can take place outside of a dry dock environment. The Assembly does have concerns about those activities with a risk of pollution. Where the Environment Agency and/or Health and Safety Executive judge that certain of these activities should take place in a dry dock environment a condition should be imposed with any planning consent to ensure that this is the case.
- The construction of the heavy rail link to the site is welcomed.
- The construction of wind turbine manufacture sheds, and industrial and warehouse buildings are supported.
- The re-location of the metal recycling plant is supported.
- The application would be in general conformity with RPG1 and the emerging RSS if the above condition is imposed.

North East Sea Fisheries

No comments

Northumbrian Water

Raise no objections

PD Ports - Raise no objections and have no comments to make.

RSPB - Raise no objections subject to planning conditions covering working methods, locations, survey and monitoring requirements and a dredging plan.

Request applicant considers implementing a simple programme of invertebrate monitoring.

Greatham Parish Council - Raise no objections.

Tees Archaeology – No objections as there are no known archaeological sites in the area.

Tees Valley Regeneration – Support the proposals stating that this is without doubt the best site for this type of work anywhere in the UK and arguably Europe. Opportunity for the Tees Valley to lead the way in a rapidly growing sector with the potential to bring significant numbers of jobs.

Cleveland Emergency Planning Unit – Has no reason to object to the applications but Able UK should put in place an emergency response plan, which will require the

approval of the Health and Safety Executive. (This forms one of the recommended conditions of this report).

Health and Safety Executive (Hazardous Installations) - No objections, stating that there are no reasons on health and safety grounds why these developments cannot go ahead.

Health and Safety Executive (Nuclear Installations Inspectorate) – Confirmation of final comments awaited.

National Grid - Raise no objections subject to all health and safety standards being met.

Network Rail – Raise no objections.

Tees Valley Joint Strategy Unit **-** No comments

One North East - - Supports the proposed development subject to the satisfactory resolution of those matters relating to environmental issues. Recognise opportunity for creating much needed jobs.

British Waterways – No comments

Hartlepool Economic Forum

- Fully support the proposal
- Recognise economic benefit both directly and in terms of the supplier chain. Many supplier business' are likely to be located in the locality.
- The direct creation of 200 jobs is feasible and likely.
- Unique opportunity to develop world class facility in a key emerging industry.
- Adds significant value to the development of a green agenda.
- Site is well removed from the main centre of tourism / water activity centred around the marina. The proposal will therefore have no impact on this.
- The area is highly industrialised and the proposal would be in keeping with other developments in the area and is highly unlikely to discourage visitors. Development would compliment the development of a Southern Business Zone Strategy which is seeking to provide a long term development for this area.

CBI North East – Support the the proposals. Will attract significant inward investment into the regions and support key growth sectors including the offshore industry and renewables.

North East Chamber of Commerce – Support the project subject to strict environmental conditions. Cite the economic benefits to the area.

Internal Consultees

Engineering Consultancy - Standard site investigation condition to be attached as a condition to any approval for the development and also that no disturbance to the adjacent watercourse should be covered by condition.

Head of Traffic and Transportation – Requires the following:
Dedicated right turn lane; travel plan; upgrade to existing bus stop facilities (beneficial if footpath link to the site was incorporated); provision for cycle parking spaces Proposed traffic levels generated from the development will not have a significant impact on the highway network. Parking provision is acceptable.

Head of Public Protection - The site is located within an industrial area and is some distance from the nearest sensitive receptors at Seaton Carew and Greatham. Gaseous and particulate emissions will disperse over distance and as long as the site is properly managed and the procedures and mitigation measures outlined in the Environmental Impact Statement are followed there should be minimal risk to public health. The main potential is the possible impacts on the local environment.
The site will be subject to a permit regulated by the EA and also subject to regulatory control by the HSE and the local authority.
Therefore no objections in principle to these applications.

Economic Development Manager - Supports the application. Opportunity to develop global centre for excellence in recycling technology which will contribute both to the economic development of the town and to the green agenda. Potential for multi-million pound private sector investment. Significant opportunity for local residents to access a range of longer term employment. Site could easily accommodate 200 jobs and if the site develops into a global centre of excellence for marine and general engineering job levels could be substantially higher.

7. Policies

7.1 The following policies in the adopted Hartlepool Local Plan 2006 are relevant to the determination of this application:

GEP1: states that in determining planning applications the Borough Council will have due regard to the provisions of the Development Plan. Where appropriate development should be located on previously developed land within the limits to development and outside the green wedges. The policy also highlights the wide range of matters which will be taken into account as appropriate including appearance and relationship with surroundings, effects on amenity, highway safety, car parking, infrastructure, flood risk, trees, landscape features, wildlife and habitats, the historic environment, and the need for high standards of design and landscaping. The policy seeks to ensure rlevanbt planning requirmenets of certain statutory consultees are satisfied.

GEP2: states that provision will be required to enable access for all (in particular for people with disabilities, the elderly and people with children) in new developments where there is public access, places of employment, public transport and car parking schemes and where practical in alterations to existing developments.

GEP3: states that in considering applications, regard will be given to the need for the design and layout to incorporate measures to reduce crime and the fear of crime.

GEP4: states that development proposals will not be approved which would have a significant detrimental effect on the environment, on amenities of local residents, watercourses, wetlands, coastal waters, the aquifer or the water supply system or that would affect air quality or would constrain the development of neighbouring land.

GEP5: states that environmental assessment of proposals will be required for all schedule 1 projects and for those schedule 2 projects likely to have a significant effect on the environment. The policy also lists other instances where the Borough Council may require an environmental assessment.

Ind5: states that business uses and warehousing will be permitted in this area. General industry will only be approved in certain circumstances. A particularly high quality of design and landscaping will be required for development fronting the main approach roads and estate roads.

WL1: states that development likely to have a significant adverse effect on an international nature conservation site will be subject to the most rigorous examination and will be refused unless there is no alternative solution or there are imperative reasons of over-riding public interest for the development. Where development is permitted, the use of planning conditions or obligations will be considered to avoid and minimise harm to the site, to enhance its interest and to secure any necessary compensatory measures.

WL2: states that developments likely to have a significant adverse effect on SSSIs will be subject to special scrutiny and may be refused unless the reasons for development clearly outweigh the harm to the special nature conservation interest of the site. Where development is approved, planning obligations or conditions will be considered to avoid and minimise harm to the site, to enhance its interest and to secure any necessary compensatory measures.

WL3: states that the Borough Council will enhance the quality of SSSIs in a sustainable manner and will seek management agreements with owners or occupiers to protect native species and habitats from damage or destruction.

WL7: states that development likely to have a significant adverse affect on locally declared nature conservation, geological sites or ancient semi-natural woodland (except those allocated for another use) will not be permitted unless the reasons for the development clearly outweigh the particular interest of the site. Where development is approved, planning conditions and obligations may be used to minimise harm to the site, enhance remaining nature conservation interest and secure ensure any compensatory measures and site management that may be required.

WL8: States that the Borough Council will seek to minimise or avoid any significant adverse impact of a development on the nature conservation interest of a site through the use of planning conditions or obligations where appropriate.

Was1: States that developments which produce waste likely to have a significant impact on the environment are required to submit a waste minimisation plan demonstrating how waste levels are being minimised having regard to the best practical environmental option, the waste hierarchy and the proximity principle.

Rur1: States that the spread of the urban area into the surrounding countryside beyond the urban fence will be strictly controlled. Proposals for development in the countryside will only be permitted where they meet the criteria set out in policies Rur7, Rur11, Rur12, Rur13 or where they are required in conjunction with the development of natural resources or transport links.

Tra2: identifies a safeguarded corridor for the Seaton Snook branch line to Seal Sands. Development proposals affecting this corridor will only be approved if a feasible alternative through route is retained.

Tra5: States that provision will be made for a comprehensive network of cycle routes and that new housing and industrial development and highway and traffic management schemes should take account of the need to provide links to the network.

Tra17: seeks to preserve access from industrial land to the railway and supports the provision of new rail sidings.

Tra18: sets out the considerations for the development rail based freight handling facilities including impact on surrounding area and provision of adequate access.

Tra19: States that residential and industrial estates should be designed to ensure adequate access by modes of transport other than the car. Where appropriate, developer contributions will be sought towards improved public transport and alternative transport accessibility.Tra20: Requires that travel plans are prepared for major developments. Developer contributions will be sought to secure the improvement of public transport, cycling and pedestrian accessibility within and to the development.
GEP6: states that developers should seek to incorporate energy efficiency principles through siting, form, orientation and layout of buildings as well as through surface drainage and the use of landscaping.

GEP18: states that development on potentially contaminated land will be encouraged where the extent of the contamination has been verified, remedial measures have been identified and where there will be no significant risk to occupiers of adjacent properties or adverse effect on the environment.

GEP7: states that particularly high standards of design, landscaping and woodland planting to improve the visual environment will be required in respect of developments along this major corridor.

Dco2: states that the Borough Council will pay regard to the advice of the Environment Agency in considering proposals within flood risk areas. A flood risk assessment will be required in the Environment Agency's Flood Risk Zones 2 and 3

and in the vicinity of designated main rivers. Flood mitigation measures may be necessary where development is approved. Where these are impractical and where the risk of flooding on the land or elsewhere is at a level to endanger life or property, development will not be permitted.

IND9: reserves land in this area for developments which are potentially polluting or hazardous. These will be permitted where there is no significant detrimental effect on the environment or on designated nature conservation sites, on amentiy or on the development of neighbouring land. In these respects special regard will be had to advice received from the Health and Safety Executive, HM Inspector of Pollution, the Environment Agency and Natural England as appropriate.

IND11: states that proposals for the introduction of hazardous substances will be permitted on sites identified in policy Ind9 for potentially polluting or hazardous substances subject to there being no significant increase in risk to people or significant adverse effect on designated nature conservation sites in the vicinity. In considering such proposals at other locations the Borough Council will also need to be satified that they will not inhibit the full opportunities for development of nearby sites.

8. Planning Considerations

8.0 The following part of the report considers the issues raised in the publicity / consultation exercise and is divided into the following sub-sections:-

1. Policy issues
2. Choice of site / need issues
3. Waste disposal considerations
4. Human health
5. Risk management
6. Drainage and flooding issues
7. Ecology
8. Economic / tourism issues
9. Transportation issues
10. Other matters

8.1 Policy Issues

Pertinent national policies

PPS1 - Delivering Sustainable Development

8.1.1 The proposal is considered to be in keeping with the environmental objectives of PPS1 which states that account should be taken of air quality and pollution, land contamination, the protection of groundwater and noise and light pollution, flood risk, protection and enhancement of wildlife habitats and the management of waste in ways that protect the environment and human health.

PPG 4 - Industrial and Commercial Development and Small Firms

8.1.2 PPG4 provides advice on the role of the planning system in relation to industrial and commercial development. Whilst the title specifically relates to small firms, the advice provided does not discriminate on scale.

8.1.3 Paragraph 1 notes that economic development and a high quality environment should be pursued together and that planning permission should normally be granted unless there are specific and significant objections, such as unacceptable noise, smell, safety or excessive traffic generation (paragraph 15).

8.1.4 It acknowledges at paragraph 8 that it remains open to planning authorities to propose policies in development plans aimed at channelling particular types of business development into particular locations. It also notes that industry and commerce have always sought locational advantage in response to various external factors, including various transport considerations for which busineses often gives high priority to, including good access to roads and ports (paragraph 9).

8.1.5 It is noted that major industrial and commercial development proposals are likely to require Environmental Assessment. It is considered that the project can be implemented in accordance with the objectives of PPG4.

8.1.6 The Government's White Paper – Planning for Suatinable Future (May 2007), confirms that PPG4 is to be superseded by a new PPS on Planning for Economic Development which is still awaited. The White Paper indicates that planning applications should be treated "favourably", unless they are outweighed by social, economic or environmental costs.

PPS9 – Nature Conservation

8.1.7 PPS 9 is concerned that planning decisions should aim to prevent harm to biodiversity and geological conservation interests. Where harm is likely to be caused the LPA will need to be reasonably satisfied that the development could not be located on an alternative site that would result in less or no harm. In the absence of alternatives adequate mitigation and if necessary compensation measures should be put in place. It is considered that the scale and location of the site lends itself to a more flexible and efficient operation (potentially the largest dry dock in Europe). Given that satisfactory mitigation and compensatory measures can be implemented it is considered that the scheme accords with PPS9 guidance.

PPS10 – Planning for Sustainable Waste Management

8.1.8 The government's guidance on sustainable waste management promotes the re-use and recycling of waste ahead of disposal. Waste disposal should only be a last resort measure.

8.1.9 A vast majority (some 98%) of material arising from ship decommissioning would be recycled with only 2% of materials destined for disposal. It is considered that the proposed project is both in keeping with the objectives of guidance in terms of promotion of recycling and similarly because of its nature would not conflict with waste disposal principles.

PPG13 - Transport

8.1.10 This PPG advises on the role of the transport system and, particularly its integration with the development of land. It recognises that quality of life depends upon transport and easy access to jobs and that an efficient and integrated transport system is fundamental to a strong and prosperous economy. PPG13 advocates three main objectives which include promoting more sustainable transport choices for the movement of people and materials, promoting accessibility to jobs by public transport, walking and cycling, and reducing the need to travel, particularly by private motor car. Paragraph 10 states that local authorities 'should aim to promote the role of ports in sustainable distribution, by encouraging good access by rail, shipping and waterways as well as road where possible'. The scheme is consistent with this PPG.

PPG20 Coastal Planning

8.1.11 This PPG acknowledges that a range of economic activities require coastal locations, which have to be reconciled with the need to protect and conserve environmental quality and wildlife habitats. Paragraph 2.11 states that *'the developed coast…may provide opportunities for restructuring and regenerating existing urban areas, thereby improving their appearance and the environment…Opportunities exist for reclaiming derelict land'*. Section 3 (c) applies to major developments requiring coastal locations, including ports, which will usually involve environmental assessment. Given that satisfactory mitigation and compensatory measures can be implemented it is considered that the scheme accords with PPG20 guidance.

PPS23 - Planning and Pollution Control

8.1.12 PPS23 sets out the Government's core policies and principles in connection with pollution control that should be integrated into development plans and indeed be taken into consideration when determining individual planning applications. PPS23 advises that Local Planning Authorities must be satisfied that planning permission can be granted taking full account of environmental impact. In addition, the relevant pollution control authority needs to be satisfied that potential releases can be adequately regulated under the pollution control framework. In the case of this project the need for various mitigation / compensation measures has been considered in some depth. It is considered that the project can be implemented in accordance with the objectives of PPG23.

PPG24 – Planning and Noise

8.1.13 PPG24 was published in 1994 and provides guidance on how noise should be taken into account in the decision making process. It provides specific guidance on the assessment process that should be undertaken to properly understand the impact of noise on noise sensitive development, as well as general advice on the principles which should be followed in terms of the relationships between noise generating uses and noise sensitive developments. Given that satisfactory mitigation

and compensatory measures can be implemented it is considered that the scheme accords with PPG24 guidance.

PPS25 – Development and Flood Risk

8.1.14 In December 2006 PPG25 was superseded by PPS25 Development and Flood Risk which incorporates new guidance regarding the preparation of flood risk assessments. The applicant submitted a supplementary report to provide additional information necessary to bring the original flood risk assessment into full compliance with the requirements of PPS25. In this regard consideration has been given to the following issues:

• Application of the 'Sequential test' with regard to suitability of land for development
• New guidance on the potential impact of climate change on flood risk

UK Ship Recycling Strategy

8.1.15 In November 2004 the House of Commons, Environment, Food and Rural Affairs Committee produced the report 'Dismantling Defunct Ships in the UK'.

The report, amongst other things, drew the following conclusions:-

1 There has been growing concern about the health and environmental impacts of ship dismantling. It is clear that a majority of large vessels are dismantled under wholly inadequate conditions on the beaches of Pakistan, India and Bagladesh.
2 As far as the government is aware, there are currently no facilities in England and Wales with the capacity and expertise to dismantle large defunct ships safely.
3 The most important factors in deciding where a ship should be dismantled are that the level of health and safety protection for workers and environmental protection at dismantling facilities meet the highest standards.
4. As regards ship dismantling in the United Kingdom, the decision to grant or deny permission for ship dismantling facilities is clearly for the planning authority concerned and the environmental and health and safety regulators. However, it seems to us that the UK has the potential to establish an industry in ship dismantling which can be done safely and offer economic benefits to the communities in which it is carried out.
5. There is an urgent need to eradicate irresponsible ship dismantling all the more so because all remaining single hulled tankers must be dismantled before 2015.

8.1.16 The Government responded to this report in January 2005 recognising that current practices in the majority of the world's ship dismantling yards are unacceptable and must change. It expressed hope that an enforceable global control framework can eventually be established.

8.1.17 In February 2007, the Department for Environment, Food and Rural Affairs published The UK Ship Recycling Strategy with two core strategic objectives: -

- To develop a strategic approach to the recycling of UK-flagged vessels consistent with the UK's national and international sustainable development commitments.
- To encourage, through the provision of guidance, the development of UK capacity for recycling of end-of-life vessels in an environmentally sound manner.

8.1.18 The strategy recognises the negative perception the industry has attracted but notes it can become an acknowledged industry:-

> "it is the public perception of the ship 'breaking' industry as an environmentally unfriendly and unsafe business that evokes controversy. With forethought and a nurtured image, a new ship 'recycling' business in the UK could be an acknowledged industry, providing that site infrastructure, local regulation and environmental management procedures are adopted with a cost structure attractive to commercial ship owners".

8.1.19 The strategy goes on to state:-

> "The ship recycling industry is predominantly based in Asia, particularly South Asia, where there is concern that adequate health, safety and environmental standards are not being met. The DNV/Appledore Reports produced in 2001 and 2003 covered the European-wide scene reporting that there are currently few quality ship recycling facilities in Europe that can compete economically on the scale of Asia.
>
> There is a need to clearly define and identify current and potential ship recycling capacity in the UK that complies with applicable legislation and regulatory regimes ensuring that these activities are conducted in a safe and sustainable manner".

8.1.20 There is therefore a very clear statement that at a national level there is a recognised need for capacity to dismantle ships within the UK.

8.1.21 The strategy goes on to recognise the application of EC Waste Shipment Regulations in implementing relevant Basel Conventions, specifically recognising that most end of life vessels would be classified as hazardous because of their contents. This, the strategy notes, would now dictate that such vessels could only be exported within OECD countries. None of the prime ship dismantling countries are members of the OECD. They would therefore be banned from dismantling ships from OECD countries.

8.1.22 Annex 1 of the strategy notes the minimum standards for which the British Government would look in seeking to procure the dismantling of this country's shipping. Particular attention is drawn to the Environment section of the minimum standards which notes:-

> "That work will be carried out in a controlled environment so that any loss of pollutants can be monitored and managed (e.g. Bunds and booms for wet

> dock work, work planning to minimise pollutant loss, etc.) Best practice suggests that full recycling should be undertaken in a dry dock or within an area that allows full capture of all liquid/solid waste (e.g. oil/water/bilge/ballast etc)"

8.1.23 Also, with respect to exports of waste and the polluter pays principle, the report states the following:-

> "As over ninety percent of a ship is recycled through the metals recovered, ship dismantling is considered to be a recovery operation, thus the proximity principle, whereby wastes should be managed as close to the source of their arising as possible, does not apply to movement of ships".

UK Waste Strategy 2007

8.1.24 The government published the Waste Strategy for England in May 2007. The strategy notes (within Annexe C17 – End of Life Ships) that although annual decommissioning of U.K. flagged vessels in the UK has run at around 5 a year (para. 3), there will be around 30 MoD vessels leaving the service in the period up to 2013. Some will require decommissioning. A further international driver likely to lead to an increase in ship decommissioning is the decision to ban single hulled tankers in EU waters by 2010. There are around 400 such vessels. Not all will be decommissioned. However clear evidence exists of a proven need for a significant number of ships to be decommissioned over a known timeframe, and with global concerns over the state of decommissioning in Asia it is clear that alternative facilities are required.

8.1.25 Studies commissioned by Defra (BMT Defence Services Ltd 2005) indicated that the UK had only a very limited capacity to decommission large steel ships, with the application site and Harland and Wolf (Belfast) being singled out as sites that had started to go through the necessary consenting process. The balance of the UK capacity related to smaller scale facilities capable of accepting trawlers and wooden hulled vessels.

8.1.26 Para 14 recognises the global market within which ship decommissioning has taken place noting: -

> "Shipping and ship recycling are worldwide activities not confined to a domestic market sector. UK capacity for recycling will, in part, be dependent on growth in demand for environmentally sound ship recycling facilities. To be economically viable, vessel recycling is likely to be associated with the dismantling of other structures, such as oil rigs and floating platforms. The international capacity is likely to remain around 700–800 ships per annum."

<u>Regional Planning Policy</u>

8.1.27 Regional Planning Guidance for the North East (RPGI, November 2002) contains policies that seek to facilitate an economic renaissance of the North East and encourage further inward investment. Policy EL7 in RPGI states that development plans should safeguard development sites adjacent to existing ports for industries and port-related services that will benefit from such locations. However,

policy EL7 also requires that nature conservation interests be protected, particularly in locations where designations of international significance occur. In such circumstances policy EL7 states that only development that does not cause damage should be permitted. Policy T16 in RPGI stresses the role of ports in supporting the regional economy but also reiterates the need to ensure the protection of sites for nature conservation importance when safeguarding land for port use.

8.1.28 The draft Regional Spatial Strategy (June, 2005), under Policy 7 gives priority to port related development as one of the key sectors in continuing development of the Tees Valley City Region (including Hartlepool). It recognises ports as key drivers of the regional economy and Policy 22 supports their growth, whilst seeking to ensure the protection of sites of nature conservation importance; more specifically,

8.1.29 Following the Examination in Public in March 2006 and the subsequent Panel's report, the Secretary of State published Proposed Changes to the draft Revised Strategy in May 2007.. The Secretary of State does not recommend any significant changes that would diminish the importance port related development is afforded within these two policies.

8.1.30 The Secretary of State does propose changes to the policy on the aquatic and the marine environment (policy 36), which reflects the introduction of PPS25. Further emphasis has been placed on the needs of the aquatic environment, and the importance of assessing the impact of the development on internationally designated nature conservation sites, in the proposed changes to policy 35.

8.1.31 In relation to renewable energy, further emphasis has been placed on considering the effect of development on habitats and species, and potential effects on the water supply and hydrology of such sites. A new policy has also been introduced on air quality (policy 38A), which directs planning proposals to consider the impact of new development on internationally designated conservation sites, and adopt amelioration measures to minimise these impacts. Further emphasis is placed on mitigating the environmental effects of development proposals in policy two. Given that satisfactory mitigation and compensatory measures can be implemented it is considered that the scheme accords with this emerging guidance.

8.1.32 The Secretary of State's Proposed Changes are still subject to further consultation prior to adoption

<u>Structure Plan Policy</u>

8.1.33 The Tees Valley Structure Plan is currently being replaced by the Regional Spatial Strategy (the adopted RPG1 and eventually the emerging RSS 2007).

8.1.34 Structure Plan Policies which were previously relevant to this proposal (namely Policies EMP8, EMP10, ENV4 & ENV27) have not been saved by the Secretary of State and have therefore ceased to have effect from 27 September 2007.

Local Planning Policy

8.1.35 The TERRC site is recognised as an industrial area within the recently adopted Local Plan. The relevant policy (Ind5j) states that proposals for business uses and warehousing will be permitted in that area. The policy states that proposals for general industrial development and for uses which are complementary to the dominant use of the site will be approved where the Council is satisfied that they will not have a significant detrimental effect on the amenities of the occupiers of adjoining or nearby properties or prejudice the development of adjacent sites.

8.1.36 The supporting text to this policy notes that the Graythorp Yard may be suitable for a range of industrial uses including marine and offshore activities.

8.1.37 This is a formally adopted policy. During the period of public consultation on the Local Plan there were no objections raised against this policy on the grounds of the expressed suitability of this site for handling marine and offshore structures. It should therefore be given significant weight in the decision making process.

8.2 Choice of site / need issues

8.2.1 The Government has produced a 'UK Ship Recycling Strategy' in February 2007, which identifies a need to provide recycling facilities in the UK. With regard to the choice of site the applicant contends within the Environmental Statement, as reflected in Appendix B of this report that the east coast of England or Scotland is advantageous in terms of its proximity to infrastructure associated with the North Sea Oil and gas industry. It states that the Teesmouth area is a favourable area, given that it is a major maritime port with a workforce with all the historic skills of ship and rig construction.

8.2.2 Specifically if permission is granted to close the dock area, the site would then become the largest dry dock in Europe. Clearly a large site such as this offers the benefit of potentially being able to accommodate a greater range of ship sizes, making it more flexible in terms of coping with demand and reducing the need for alternative sites.

8.2.3 As part of its justification for the Graythorp site, the ES at paragraph 5.2.2 states that there is only one ship in the world that would have difficulty fitting into the dock (the Jahre Viking). It states that TERRC is the only end of life yard being considered that would be physically able to cope with ultra large crude carriers (ULCC - the largest class and size of vessels) and that without the site the UK would be unable to deal with the aforementioned class of ships.

The ES states that

> "the Graythorp site is not the only site in the United Kingdom on which a new turbine fabrication plant could be located. However, the site is immediately available and it does have the necessary road and rail

> connections and a deep water berth which is needed to take offshore turbines to their intended locations".

8.2.4 The above factors are therefore considered to present a strong case for the proposed development on grounds of need and site location.

Question of ships running aground

8.2.5 The applicant has provided information to show how a vessel falling within the ULCC class can be manoeuvred through the proposed navigable channel and into the dry dock. Friends of the Earth have previously questioned the practicality of this manoeuvre given the need to accommodate attendant tugs within residual space constraints of the dredged channel. In this regard the Harbour Master raised no objections during the previous application stating "it is not unreasonable for vessels of the dimensions shown to be navigated into the main basin using tugs". The Harbour Master continues not to object to the current applications.

8.3 Waste disposal considerations

8.3.1 The Government's Planning Policy Statement (PPS10) – Planning for Sustainable Waste Management states that it is the government's policy to promote a waste hierarchy in which priority should be given to the reuse and recyclability of redundant materials ahead of disposal. Disposal should only be relied on as a last resort. Waste management strategies are to be initiated at the regional level.

8.3.2 A number of respondents have objected on grounds that the proposal to decommission American ships and deal with the waste generated would be in conflict with so-called best practical environmental options and the 'proximity principle'.

8.3.3 They state that in accordance with EU directives waste should be disposed of at a location in proximity to its generation. However, as previously stated, DEFRA's position is set out in The UK Ship Recycling Strategy (February 2007), which states

> "ship dismantling is considered to be a recovery operation, thus the proximity principle…does not apply to movement of ships".

8.3.10 Others have commented that PPS10 – Planning for Sustainable Waste Management states that areas that have traditionally processed much waste should not be required to receive anymore. This is considered to misrepresent the true position in PPS10 which states that in deciding which sites to identify for waste management facilities, waste planning authorities assess their suitability against various criteria including the cumulative effect of previous waste disposal facilities on the well-being of the local community including any significant adverse impacts on environmental quality, social cohesion and inclusion or economic potential.

8.3.11 The proposal in this case, though, is not for a new waste disposal facility but to utilise an existing facility which has consent f and has previously undertaken decommissioning works on oil platforms for purposes which do not include waste

disposal. The processes consented are similar to those involved in the decommissioning of ships.

8.3.12 It is also considered that, notwithstanding that the grant of permission would allow for the importation of waste materials, that the TERRC site is in very close proximity to the Seaton Meadows site. The Environmental Statement indicates that Seaton Meadows is likely to receive certain waste materials arising from the proposed project subject to it being licensed to do so. Consequently there is an opportunity to overcome or at least reduce a potential requirement to transport resulting wastes on long overland journeys.

Transfer of waste from site

8.3.13 Section 28 of the Environmental Statement states that most waste will leave the site by road haulage rather than by rail. It is conceivable that some would leave by rail, but the rail traffic is likely to be largely for goods rather than waste. Wastes for disposal would generally be carried in 25 tonnes capacity HGV's. This would involve in the order of up to 480 vehicles per year, an average of less than two vehicles per day. This figure includes waste generated by routine cleaning up of the dock floor as well as waste generated by decommissioning of ships.

8.3.14 Details of the removal, storage and disposal of various waste streams arising have been incorporated within a compliance plan attached to the ES. The Compliance Plan will need to be approved and monitored by the Environment Agency to ensure that agreed processes are being adequately implemented. The Environmental Statement states that all waste would be transported between the site and its disposal location by a registered carrier of wastes.

Waste disposal capacity

8.3.15 The applicant has provided information within the Environmental Statement – June 2007 setting out the position as at April 2004 of available waste disposal capacity and life expectancy of landfill sites within the Tees Valley area and wider northern region. At that time the annual landfill site input within the Tees Valley area amounted to 782,000 tonnes This amounted to a life expectancy within the Tees Valley area of some 25.0 years. The ES projects that a maximum of some 4,000 cubic metres of ship related waste and 6,300 tonnes of contaminated dock floor material will be generated as a result of the 2 annual ship decommissioning cycles. The wastes generated from the project would therefore amount to less than 2% of the annual site inputs within the Tees Valley based on the above figures. This would equate to around 4 months of the 25.0 year life expectancy.

8.3.16 Taking these statistics into account the proposed facility is predicted to have only a very marginal impact on available landfill capacity and the need to plan for future provision within the Tees Valley Region.

Seaton Meadows

8.3.18 Seaton Meadows is a licensed waste disposal site in close proximity to TERRC. Seaton Meadows is already licensed and could receive many of types of wastes associated with ship decommissioning e.g. asbestos irrespective of whether the proposed project proceeds.

8.3.19 In referring to their previous comments, Friends of the Earth consider that the Environmental Statement is deficient in that it fails to provide an assessment of the suitability of Seaton Meadows as an expected destination for waste arising from the project. They state that the regulations require the indirect, secondary, cumulative, short, medium and long term effects of the development to be considered.

8.3.20 Whilst this requirement is understood, the Seaton Meadows site was itself the subject of a number of previous planning permissions for waste disposal dating back to the 1980s. Consideration was given to the effects of waste disposal at this site along with appropriate conditions such as leachate and landfill gas control. It is currently an operative landfill site and is licensed and regulated by the Environment Agency to receive various waste streams.

8.3.21 In this context it would be perverse to reassess the suitability of the site as a waste disposal location along with the environmental protection measures in place there as part of the environmental impact assessment procedures for the current application.

8.3.22 It is possible that waste will not always go to Seaton Meadows but might be sent to other disposal locations. To provide a detailed assessment of each conceivable waste disposal site over the life time of the project would be an extremely onerous task and is considered to be beyond what the E.I.A regulations seek to achieve.

Setting a precedent for other types of waste

8.3.23 The types of waste that are permissible for acceptance at landfill sites are regulated by the Environment Agency subject to a valid planning permission. Each substance is dealt with depending on its own innate qualities and requirements. The introduction of any materials not already permitted under the existing planning permissions would require a separate consent. Precedent is not therefore considered to be an issue.

8.4 Human Health

General human health / proximity to populated areas

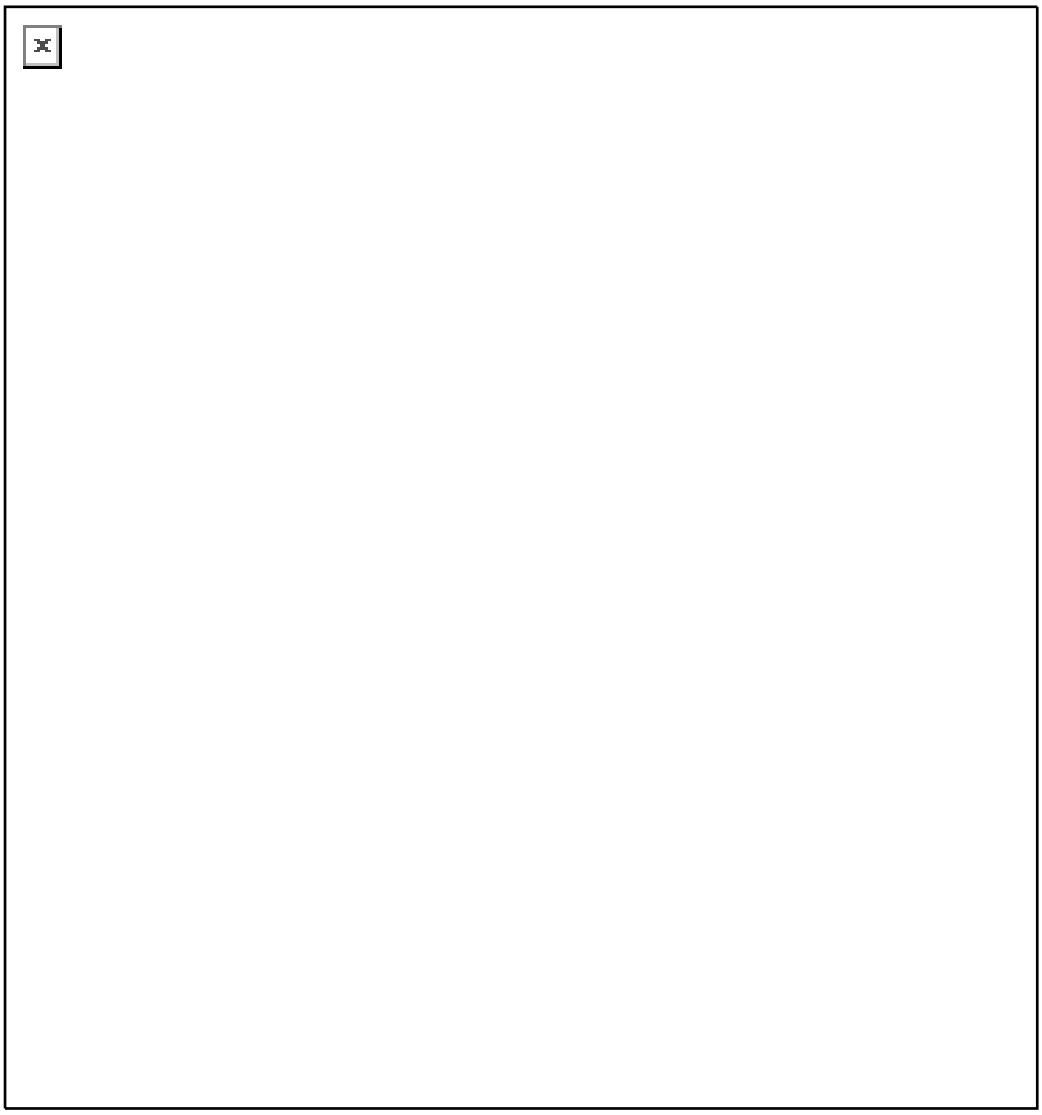
8.4.1 Numerous objectors have commented on the low level of general health within the Hartlepool area. However, there is no evidence to link the application site with any adverse affects on health in the Hartlepool area.

8.4.2 The wastes arising from the proposed project will all be disposed of at suitably licensed premises many of which will already be able to accept identical wastes arising from many different sources. It would therefore be both anomalous and

inappropriate to call into question the safety of landfill operations and therefore effectively challenge the role of the licensing regime.

Air pollution issues

8.4.3 The following table summarises the nature and source of potentially released contaminants prior to any mitigation measures to control or prevent such emissions.



8.4.4 The environmental statement identifies the locations in closest proximity to the site which are given consideration in terms of vulnerability to airborne pollution.

- Playing fields to the north at a distance of approximately 300m of the site boundaries,
- An industrial estate at approximately 70m north of the site boundary,
- sewage works at approximately 300m north east of the site boundary,
- works at approximately 370m east of the site boundary,
- a power plant to the east at approximately 350m of the site boundaries.

8.4.5 The majority of these receptors are identified as low sensitivity given that they comprise industrial operations. The playing field is recognised as more sensitive however the impact is considered to be reduced by the reduced frequency and duration of exposure.

8.4.6 The nearest residential communities are Seaton Carew and Greatham both in excess of 1.5 kilometres from the site

8.4.7 The Environmental Statement contains the following information:-

A review of onsite air data taken at a typical ship decommissioning site in Bangladesh has been used to identify potential level of air concentrations of typical pollutants associated with a shipyard. These were found to be generally below acceptable exposure levels for air with occasional exceedance. However, as the United Kingdom regulations and methods of working are far stricter and better managed then the situation at TERRC will be far better.

A qualitative and semi-quantitative assessment of the potential dispersion and natural attenuation behaviour of the airborne contaminants and odours in the atmosphere has enabled the prediction that emissions of particulates matter, gases, vapours and odours at the site would not be significant and should not be of potential concern to the local population and environment.

It is concluded that the potential risks from airborne matter and odours to the local population and the environment in the vicinity of the TERRC site should not be considered of potentially significant impact.

8.4.8 The Environmental Statement states that emissions to air can be adequately controlled through appropriate working practices. The Environment Agency and Health and Safety Executive will be responsible for stipulating detailed operational practices with respect to preventing any adverse effects from air emissions.

8.4.9 For example all asbestos stripping will be carried out in sealed conditions with negative air pressure so that dispersal of fibre into the atmosphere will be negligible. This will be carried out in accordance with the United Kingdom Control of Asbestos Regulations 2006. The removal of naturally occurring low level radioactive substances would be subject to specific procedures controlled by the Environment Agency.

8.4.10 The Environmental Statement confirms that to reduce air emissions during decommissioning of ships, metal cutting will employ a combination of hot (burning methods) and cold techniques (shearing methods).

8.4.11 With regard to metal cutting in general any particulate release would become less concentrated over distance and is not predicted to have an adverse affect on the previously identified receptors or on the environment.

8.4.12 Any emissions to air in general are predicted to be in keeping with national air quality standards. These will be monitored to ensure compliance. There are no objections on public safety grounds from the Head of Public Protection.

Noise and vibration issues – housing areas to north

8.4.13 With regard to the need to protect the health of people working at the site the Environmental Statement indicates that working practices will accord with the requirements of various relevant bodies of legislation including The Health and Safety at Work etc. Act 1974 and its subordinate legislation such as The Control of Substances Hazardous to Health Regulations 2002 and United Kingdom Control of Asbestos Regulations 2006. The responsibility for implementation and compliance with this legislation lies with the HSE. The operation is considered to be too far separated from the nearest residential areas for noise or vibration to cause an impact there, a view endorsed by the Head of Public Protection and Housing.

Proximity of schools

8.4.14 The nearest schools to site are located in Seaton Carew and Greatham in excess of 2 kilometres away from the site. Given the findings of the Environmental Statement there is not considered likely to be any adverse impact on these sites.

Emergency Plan requirements

8.4.15 The Cleveland Emergency Planning Unit has raised no objection to the planning application. However given the site's location between Huntsman Tioxide and the nuclear power station and taking account of the number of additional employees projected it recommends that the company should make plans to secure the protection of those employees through the preparation of a response plan. These measures can be secured through planning condition.

8.5 Risk management

8.5.1 The ES states that various procedures and practices will be implemented to avert the risk of contamination and to treat any leaks and spillages should they occur. Various measures include the following:-

1. Cofferdam construction will use only non-contaminated materials. Materials will be tested for possible contamination before importation.
2. Oil retention booms will be deployed around vessels and across the dock entrance.
3. Water sampling is to be undertaken within the dock to ensure that the presence of any contaminants do not exceed agreed trigger points.
4. For work on dry land and in the dry dock, the site is covered in granular material that can be dug out and replaced if contaminated.
5. Absorbent material would be used to pick up any spillages.
6. A clay bund will be constructed inside the position of the cofferdam so as to isolate any leakage of contamination from any clean water which might enter the dock through the gates.
7. The applicant operates a 3 tier incident response plan in the event of an oil spillage occurring.
8. Regular inspection of vessels to ensure no leakage.

8.6 Drainage Issues

Preparation of the dry dock

8.6.1 The methodology to be used in constructing the dry dock is detailed within the Environmental Statement and is summarised within Appendix B to this report. It acknowledges the impracticality of treating the vast volume of water impounded within the dock should this become necessary and as such the approach would be to ensure that steps are taken to minimise the risk of a pollution incident occurring through the drainage regulations administered by the Environment Agency.

Lack of solid dock floor

8.6.2 The Environmental Statement confirms that the structure of the dock floor comprises a lattice work of concrete beams infilled with ballast of crush rock. Following dismantling operations and prior to the dock being reflooded, the dock floor will be tested for residual contamination. Any contaminated aggregate would be removed and replaced with clean material. The Environment Agency has not objected to this proposed remediation strategy.

8.6.3 The following text is taken from para. 12.5.11 of the Environmental Statement and provides the justification:

"*The dock floor is permeable by virtue of the layer of aggregate infilling the spaces between the existing concrete beams which are load bearing and give the floor sufficient strength to support steel and concrete oil and gas rigs during their construction. Photographic evidence (see front cover of ES) from the time the dock was used in dry conditions shows water on the dock floor in dry weather conditions. This indicates that there is a movement of groundwater upwards onto the dock floor. In fact the floor of the dock was excavated to this depth and no deeper as the leakage of groundwater would then have become excessive. Because the base of the dock is below the level of the Seaton Channel, the natural water table will be somewhat higher than the level of the dock floor, so the drive of the watertable will mean that the flow of groundwater is upwards into the dock. This being the case, it is not expected that there will be significant downward movement of liquids in the dock through the floor into the groundwater. The superficial geological deposits in the area were found in the site investigation undertaken by Able UK in 1998 to be a series of clays in a thick sequence of low-permeability glacial till and these underlie the site to provide a low permeability seal below the dock floor. Had they not been there channel water would have surged upwards through the dock floor every time Laing Offshore Ltd closed the dock gates and pumped out the dock. This did not happen, hence Laing Offshore Ltd was able to use the dry dock for its rig fabrication work".*

Analysis of trade effluent /water discharge

8.6.4 The impact from trade effluent is considered within the appropriate assessment of this development attached as Appendix D. The question of water discharge quality will be considered by the Environment Agency who are required to assess an application for drainage consent in relation to this project. The Agency raises no objection in principle.

Need for a secondary bund / Stability of cofferdams – may buckle / requirement for sealing etc.

8.6.5 It is part of the current planning application to incorporate a secondary bund within the dock. This will serve to separate the 'dirty' part of the dry dock within which dismantling takes place from any clean water filtering back into the dock through the dock gates or cofferdam. The ES confirms within chapter 24 that these separate areas are to be drained via separate sumps. Clean water is to be pumped back into the Seaton Channel. Any dirty water is to be contained on site prior to testing. If the water contains excessive hydro-carbons these will be removed by an oil water interceptor before being pumped back into the channel. Where testing reveals any dock water to contain additional pollutants it will be tankered for treatment offsite. These discharges will be regulated by discharge consents issued by the Environment Agency monitoring and disposal arrangements will also form part of the Environment Agency Waste Management Licence.

8.6.6 Concerns have been expressed with regard to leakage of water back into the dock and the potential for this to cause contamination. In this regard the Government's guidance document 'Overview of Ship Recycling in the UK' states that it is normal for a dry dock to have some water running into it from land drainage, leakage from dock gates, rain water or any spillage from the ship. This effluent is to be continually pumped out and stored ready for treatment on or off site. Standby or fixed cleanup facilities are to be available for the treatment or removal of effluent in the event of an accidental spillage.

8.6.7 The proposed drainage strategy for the site is considered to be consistent with the principles outlined above.

8.6.8 The technical design of the cofferdam will need to be in accordance with the relevant British Standard.

Adequacy of means for dealing with dock contaminants and drainage etc.

8.6.9 The Environmental Statement confirms that a new drainage system will be put in place.

8.6.10 Foul sewerage is to be treated in a proprietary sewage treatment works on site to EA standards.

8.6.11 As indicated above,clean water leaking back into the dock through the dock gates or cofferdam would go to a sump before being discharged back into the Seaton Channel.

8.6.12 Run-off from the dock floor would be potentially contaminated and would therefore go to a separate sump segregated from the clean water sump by the secondary clay bund. This water would then be held in storage tanks before being tested and if necessary treated through a retention interceptor to extract oily substances before being discharged into the Seaton Channel. If further types of contamination in addition to hydrocarbons are found to be present in the water e.g.

invasive species the water would be transported offsite for appropriate treatment. The quality standards that the water would need to meet so as not to trigger a need for treatment have been specified in the ES and would need to be agreed by the Environment Agency as part of the working plan for the site.

8.6.13 Potential contaminants and their source are listed in the table below:-

Table 24.5 Potential Contaminants

Contaminant	Source
Particulate contamination	
Metal particles	Superstructure, bilge water, ballast water.
Free phase contamination	
Petroleum hydrocarbons	Fuel, oil, grease
Mercury	Anodes, electrical equipment
PCB-containing oils	Electrical equipment
Dissolved phase contamination	
Petroleum hydrocarbons	Fuel, oil, grease, bilge water, ballast water.
Biocides, including organotin compounds	Antifouling paints
Metals, including:	
Aluminium	Electrical equipment, superstructure, bilge water, ballast water.
Arsenic	As above.
Copper	As above.
Chromium	As above.
Lead	As above.
Iron	As above.
Mercury	As above.
Zinc	As above.
Barium	As above.
Cadmium	As above.
Marine Invasive Species (MIS)	Bilge Water Ballast Water

8.6.14 Any contaminated liquids running off the land based dismantling areas would be passed through retention interceptors. The ES states that no contaminated scrap metal will be sheared on permeable surfaces. Contaminated scrap metal is to be processed on a purpose built fully contained concrete area.

8.6.15 Roof drainage is to be directed into a sealed underground system before being discharged directly into the Seaton Channel.

8.6.16 The gates will be constructed to a height of 5.2 metres A.O.D with an additional splash wall in order to protect against 1:200 year tidal surge.

<u>Lack of sufficient data regarding water treatment plant – need for firm specification.</u>

8.6.17 The Environmental Statement as amended confirms that there is to be no on-site treatment of contaminated water arising from dry dock operations within the site. Water is to be held within purposely constructed tanks on the site. This water would be tested whereafter it would either be disposed of to the Seaton Channel or tankered off-site for treatment at a suitably licensed facility depending on whether it meets Environment Agency quality criteria.

Lack of sufficient / accurate data regarding oil / fuel discharge

8.6.18 The applicant has provided with the Environmental Statement details of the proposed drainage system for the site. This is referred to in appendix C of this report. Essentially it involves pumping clean water back into the Seaton Channel, pre-treating it through an oil / water interceptor if found to be necessary. Any water subject to additional contamination is to be tankered off-site to be dealt with at a specialist facility. The precise details of this process including the design of the oil water separator will be controlled by the Environment Agency through its drainage licensing regime.

Wet dock activity

8.6.19 The Environmental Statement confirms that under no circumstances will hull decommissioning be undertaken whilst the ship is in wet dock. This methodology has been rejected as it was considered to pose too great an environmental risk. Wet dock operations are to be restricted to waste stripping within enclosed areas and certain repair and refurbishment processes.

Removal of toxic material in covered areas

8.6.20 The ES confirms that prior to decommissioning waste materials within the interior of vessels will be removed. This work does not depend on a dry dock location given that it would be undertaken in an enclosed area. The waste material would then be safely containerised and stored within the vessel prior to unloading when the vessel is settled in the dry dock.

Flooding

8.6.21 The mitigation strategy confirms that the frontage of the site with the Seaton Channel will be constructed to a minimum 5.2 metres A.O.D to sufficiently protect the dry dock against tidal surge. Certain parts of the site are lower than 5.2 metres A.O.D and vulnerable to inundation in an extreme flood event in particular sensitive storage areas. However it is proposed to protect vulnerable areas of the site containing contaminated materials with appropriate bunds to protect against flood risk.

8.7 General ecology considerations

8.7.1 The Local Planning Authority has undertaken an appropriate assessment of the project alone and in-combination with other projects in relation to its impact on the Teesmouth and Cleveland Coast Special Protection Area (SPA). The findings and conclusions of this assessment are presented separately at Appendix D. Dredging adjacent to quays 10 and 11 will lead to the loss of 0.56 hectares of SSSI (0.3% of the inter-tidal area of the Seal Sands Site of Special Scientific Interest (SSSI). This area is considered to be of low value to the SPA birds but by way of compensation a financial contribution towards habitat replacement is proposed as part of a planning agreement in the event that Members are minded to approve the planning application. As yet a specific location at which this replacement habitat will be provided has not been identified.

8.7.2 The Environment Agency is currently engaged in a programme of identifying land for habitat creation within the Tees Valley Area. This programme responds to a projected need to replace habitat that will be lost to sea level rise in the future. It is anticipated that the contribution from the applicant will dovetail with this strategy.

8.7.3 In identifying an appropriate level of financial contribution, a guiding principle has been applied that the amount of habitat replacement should be larger than and be of at least equal quality to the amount being lost (in this case 0.56 ha). Natural England has advised that an appropriate contribution for the provision of 1.5 ha of habitat should be secured. Based on a previous habitat creation scheme of similar scale undertaken by Industry Nature Conservation Association (INCA), a sum of £150,000 is considered to be appropriate. This has been accepted by the applicant and would be payable in annual instalments up to completion of implementation. A final target date for completion of implementation has been set as October 2013, and it is anticipated that the scheme can be achieved within that time frame.

8.7. 4 The project has the potential to impact on other features of nature conservation interests including within the site itself and in relation to nearby SSSI designated sites (notably bird communities roosting on Greenabella Marsh to the west of the site and seal communities using Seal Sands).

8.7.5 The applicant has proposed a Conservation Management Plan to clearly identify the works, procedures, specific actions and monitoring surveys required to protect and enhance the ecological features of nature conservation importance. The various mitigation and monitoring proposals are presented in the summary table set-out earlier in this report. The monitoring regime would include surveys of channel stability, replacement habitat, sedimentation or erosion of the SPA, and suspended solids in channel water during dredging and dust. If Members are minded to approve planning permission these measures would be secured through planning conditions and a planning agreement.

8.7.6 At present operations on the site are monitored and reviewed through a quarterly meeting the TERRC Ecological Advisory Group (TEAG). This group was set-up as part of the planning agreement relating to the 1997 planning permission. It comprises representatives of Able UK, Natural England, the Environment Agency, INCA and Hartlepool Borough Council. In the event of planning permission being granted the TEAG remit would be expanded to encompass and review the monitoring requirements of this project.

<u>Ecological features within the site</u>

8.7.7 The Environmental Statement recognises that there are two areas of some nature conservation importance within the site that could be affected. With respect to ditches and wetland along the north-east margin of the site, some potential for amphibian presence is identified, though considered to be extremely unlikely (A survey in 2006, found no presence of great crested newt). Natural England accept that the likelihood of this is extremely low.

8.7.8 Nevertheless an additional pre-construction survey is to be carried out and replacement habitat provided within the site if found to be necessary.

8.7.9 The freshwater and neutral grassland habitats present have been evaluated as being of low importance for nature conservation, and this is no doubt the case compared to the relative value of the surrounding designated sites. However, these habitats have some intrinsic ecological value that would need to be mitigated or compensated for. For example the Dingy Skipper butterfly, *Erynnis tages,* has been recorded on the grassland areas (Wainwright, Oct 2005). A commitment is made in the Conservation Management Plan to "relocate any areas of neutral grassland (including calcicolous species) that will be lost during construction" and, regarding wetland habitats, "to replace and, to the extent practicable, enhance these habitats for wildlife." The implementation of these commitments should ensure that there is no net loss of biodiversity in terms of these habitats.

Effects on Greenabella Marsh

8.7.10 The Environmental Statement identifies that noise emissions from the proposed site of the metal recycling apparatus have the potential to disturb bird assemblages such as common tern. By way of mitigation it is proposed to construct a visual and acoustic barrier. Notwithstanding this the noise generated by the metal shear is expected to extend some distance into the marsh resulting in approximately 8 dB increase in noise levels across over 4 per cent of the area immediately adjacent to TERRC. The ES concludes that whilst the disturbance will be long term, the impact is minor as the rise in noise level is relatively small as is the extent of the area affected. Notwithstanding this the noise impact of the metal recycling facility is to be monitored once installed in order to inform the most appropriate design of barrier and to ensure its efficiency.

Effects on seals using Seal Sands

8.7.11 The Environmental Statement indicates that in general terms seals have the potential to be affected by toxic contamination or excessive noise particularly during the pupping season. The ES concludes, however, that seals will not be exposed to any increased levels of contamination and as such no mitigation is required. A number of factors have lead to the conclusion that toxic contamination will not present a significant issue to seals. These are:-

1. The existing level of sediment contaminants (confirmed by CEFAS) on Seal Sands expected to be similar to that mobilised by dredging – therefore impact insignificant.
2. The controls over deposition of dredged sediments.
3. An effective working plan to manage and help prevent the risk of leaks and spillages of substances such as oil.

8.7.12 With regard to noise impact, the ES states that mitigation is required to ensure that no piling or dredging operations will take place over the period mid June – August (the pupping season) within the period 2 hours either side of low tide and also that 'soft start' procedures are used for relevant machinery. This seasonal

constraint largely coincides with limitations imposed by Condition 17 relating to the testing of metal sheer equipment.

8.7.13 Furthermore there is a commitment to continue to contribute to the ongoing seal monitoring programme. The results of this monitoring "will be reported at the end of the survey period and the information fed into the review process with the potential to revise operations in response to the findings". (Conservation Management Plan, section 7.2.3.) It is considered that these measures should be sufficient to avoid any long-term damage to the seal population in the Tees Estuary.

Impact of quays 10 and 11 on Teesmouth field centre / would flood defences/ restrict views from the hide / impact of repair and refurbishment on value of hide.

8.7.14 As was confirmed during the course of the previous applications the jetty, which extends along the shoreline from Quay 11 to the British Energy power station, is no longer proposed. It is stated that the shoreline frontage will still be reinforced by sheet piling to the same height as Quay 11 (5.2 m AOD), and a mooring bollard will be installed.

8.7.15 The observation hide (seal hide) on the riverside next to the power station will not now be disturbed and will remain intact in its present position. Whilst inevitably the mooring of ships at quays 10 and 11 will restrict views to a certain extent in a westerly direction views will continue to be available from the hide to Seal Sands.

Impact on birds

8.7.16 The RSPB raise no objection to the application subject to conditions. The conditions are considered to be reasonable and are reflected later in the report. It is considered that proposed mitigation measures will provide sufficient control regarding the risk of toxic contamination arising. These measures include the sampling of dock floor sediments for contamination (and treatment as necessary) prior to the dock being reflooded. It has been determined that sediments in the Seaton Channel are of a similar composition to that in the wider Tees River system. There is therefore considered to be no reasonable justification for an invertebrate monitoring programme.

ES fails to clarify phasing of works

8.7.17 The general phasing of operations including any simultaneous works that are likely to give rise to in-combination effects is considered to have been adequately addressed with the Environmental Statement.

Need for full season's bird count data.

8.7.18 Winter bird survey data for 2005/2006 are included within the ES. The survey comprised some 16 site visits over this period. It is considered the extent of the survey provides a satisfactory insight into bird usage of the SPA which informs the LPAs appropriate assessment.

8.7.19 Notwithstanding this the applicant has agreed to undertake a further full season's survey of bird usage over the period October through March following the completion of dredging and piling construction works.

Climate change

8.7.20 The relationship between climate change and the proposals to carry out capital dredging within the Seaton Channel is considered within the LPAs appropriate assessment (see Appendix D of this report). This recognises that an annual rise in sea level of 6mm is predicted.

8.7.21 There is the possibility that the accretion rate on the SPA will not keep pace with this sea level change and that areas of the SPA will be inundated and unavailable to birds. The reduced accretion rate assumes that the dredged material is released at sea. As an alternative to this, Able UK would agree to use some of dredged material from the maintenance dredge to replenish the sediment on the SPA should this be felt necessary. This would only occur if triggered by bathymetric monitoring results and with prior agreement from the Council and after consultation with the statutory authorities.

Removal of toxics should be within covered areas

8.7.22 The ES confirms that toxic material such as asbestos will be stripped from the vessel prior to it being decommissioned. This will ensure that the works take place in an enclosed space. Asbestos will be double bagged and will not be unloaded until the ship is in dry dock.

Questions over predicted noise levels/sound power levels

8.7.23 The Health and Safety Executive is a statutory consultee in relation to this project. Had the sound power levels identified been unacceptable or erroneous the LPA would have expected this to have been drawn to its attention. The Health and Safety Executive has raised no concerns over the identified sound power levels.

Heavy metal content of paint and anti-fouling agents/impact of toxic metals/ capacity to deal with PCBs and radioactive materials.

8.7.24 The processing and means of disposal of the various forms of waste that are expected to arise as a result of the proposed project has been detailed in the TERRC compliance plan. This plan has been attached as an appendix to the Environmental Statement but ultimately will need to be approved and regulated by the Environment Agency. The EA do not object to the scheme.

8.7.25 No ships carrying military weaponry (including nuclear armaments) will be allowed into the TERRC site for decommissioning. No ships with nuclear engines will be received at TERRC for decommissioning, though the ship would be accepted if the engines had been previously removed. Any radioactivity left over from these sources would be removed at the port of departure before the vessel commenced its journey to TERRC.

8.7.26 The working plan for the site administered by the Environment Agency will include monitoring for the presence of naturally occurring radioactive waste: low specific activity scale (LSA) that can form on structures and assemblies and radioactive smoke detectors.

8.7.27 Any hazardous substances recovered would be landfilled or treated as appropriate at a site appropriately licensed by the Environment Agency.

8.7.28 The cofferdam is to be constructed from clean materials and there is no reason to expect that its dismantling and re-building would cause any toxic pollution.

8.8 <u>Economic issues – image of the town</u>

8.8.1 The Local Plan recognises tourism as a growing sector of the local economy following the advent of attractions such as the marina and historic quay. Seaton Carew is recognised as an opportunity to provide seaside based recreation and leisure opportunities. At the same time the Local Plan does not identify the appearance of the Graythorp dock area as a threat to the town's tourism industry and does not seek to prohibit heavy industrial practices there for this reason.

8.8.2 The environmental statement acknowledges that the TERRC site would not be visible from a range of tourist destinations in both Hartlepool and Seaton Carew. It concludes that the only destinations of visitor value from which the site would be visible are the Teesmouth Field Centre and the national nature reserve both of which lie in a heavily industrialised environment.

8.8.3 It is considered that the most direct routes to the various attractions on to which a majority of traffic is likely to be concentrated would be the A689 to the south and the A179 to the north of the town centre. Neither route passes the site. All tourist white and brown signs on the outskirts of the town direct traffic along main routes that bypass the TERRC facility completely.

8.8.4 Any tourist related traffic on the A178 Tees Road would pass the site very quickly and would therefore have only limited views. In any event the site would be viewed within a heavy industrial landscape context, between the Huntsman Tioxide and the power station sites characterised by substantial energy infrastructure. These considerations are supported by the Hartlepool Economic Forum who state that the site is well removed from the main tourism centre and should therefore have no impact on this.

8.8.5 The proposed development is not therefore considered likely to have an adverse effect on the image of the town.

<u>Employment generation claims/relationship with local economy</u>

8.8.6 The various regional policy documents including regional planning guidance, the draft regional spatial strategy and the Tees Valley Structure Plan all seek in principle to encourage appropriate development of land adjacent to the ports for port related development that needs to take advantage of the unique locational facilities.

8.8.7 Furthermore One North East, the Hartlepool Economic Forum and the Council's Economic Development Manager have all recognised that the project offers the opportunity for creating much needed jobs.

8.8.8 The Environmental Statement predicts that there will be short term job gains associated with the construction of the cofferdam, quays and various buildings. In terms of the ongoing operations of ship dismantling and metal processing some 219 jobs are forecast.

8.8.9 The applicant forecasts that some 26 vessels will be accepted at the TERRC facility per year in two decommissioning cycles (some 12-15 vessels each). It recognises that the number of vessels that can be accepted depends on size and the need to retain at least 20m of access between each vessel as free space for machines and decommissioning.

8.8.10 The Environmental Statement provided the following further employment profile details assuming a batch of 12 ships within the dock awaiting decommissioning:-

1. 21 management staff comprising 1 overall decommissioning Works Manager, 4 managers covering works planning and resources management, and 16 supervisors covering 6 decommissioning teams.

2. 192 manual employees to be formed into 6 decommissioning teams (each team split between two ships. Therefore each ship is attended by 16 operators, made up of 2 team leaders, approximately 6 operators involved with waste removal operations and approximately 8 involved with metal removal and de-fabrication operations.

8.8.11 The DEFRA document entitled 'Overview of ship recycling in the UK' (February 2007) provides an estimate of the type and number of staff required to dismantle a vessel of 2,500 - 5,000 tonnes in an established recycling facility. Various provisos are given in that the estimate does not include shift staff and subcontractors and that the actual numbers of staff will depend on the size of the facility, the number of ships being dismantled and the time allocated for the dismantling process.

MANAGEMENT:
Project Manager
1
Health, Safety and Environmental Manager
1
Quality Assurance Manager
1
Human Resource Manager
1
Competent Waste Manager
1
TECH SPECIALISTS:

Professional Engineers
2
Demolition Engineer
1
SUPERVISORY:
Project Foremen
1
Store Person
1
TECH AND SUPPORT:
Clerical Staff
2
Welders and Gas Cutter Operators (double as Fire Watchers)
4
Mechanics
2
Electricians
2
Plant Operators (2 plants)
2
Crane Operators (2 cranes)
2
Forklift Operators
3
Support Store Person
2
Security Staff
4
Labourer Staff
6
TOTAL STAFF
39

8.8.12 Taking into account the economies that will be available from decommissioning ships in multiple batches it is considered that the job creation projections are consistent with the Government's own assessment above.

8.8.13 The ES states that the applicant intends to have the capacity also to build ships at the TERRC site, though this is not likely to be the main activity in the foreseeable future.

8.8.14 Tees Valley Regeneration have previously provided an estimate of the number of jobs that could be created in the wind energy industry within the Tees Valley.

Wind turbine blades – 100-200

Wind turbine towers and bases – 130-200

Wind turbine nasal heads – Up to 100

8.8.15 These figures were based on enquiries that had been received from wind energy related companies. It is understood that at present there are no manufacturers of turbine related components in the Tees Valley.

8.8.16 The Environmental Statement projects that the site could create some 510 jobs in the turbine manufacturing industry which would be consistent with the upper projection levels that TVR consider possible based on previous enquiries.

8.8.17 It is therefore considered that this element of the project provides considerable job creation potential. Based on the above evidence even the most conservative estimates suggest that in excess of 200 jobs could be created.

8.8.18 In addition to the number of jobs proposed the company confirm that as part of a planning agreement they are prepared to offer targeted training and recruitment opportunities to local residents.

Reputation of the company

8.8.19 References have been made to the company breaching health and safety and environmental protection regulations in relation to their existing operations. Objections have been raised on this basis to the developers ability to carry out the proposed operation in a competent manner.

8.8.20 It should be noted that the competence of the site operator would be evaluated through the ability of the applicant to produce a sound and enforceable working plan for the site. The working plan would need to be approved by the Environment Agency who has to ensure that the applicant is a fit and proper person before issuing a waste management licence. The Agency has the powers to revoke the activities under the licence where the management of the licensed activities has ceased to be in the hands of a technically competent person. With respect to planning regulations it is the use of the land rather than the individual operator that is in question. The competence of the developer has occasionally been taken into account as a material planning consideration in certain historical planning cases where there was thought to be a risk of a site becoming abandoned with adverse consequences for surrounding land uses. This is not considered to be a material planning consideration in this case.

8.8.21 As previously touched on in this report, the LPA are not considering a planning application for landfill operations. The nearby landfill site at Seaton Meadows has been the subject of several objectors' comments but it should be noted that the site, operated by Alab Environmental has been the subject of previous planning applications. The site is monitored and regulated on an ongoing basis through the Environment Agency's licensing regime. It is therefore considered inappropriate to call into question the applicant's compliance record at Seaton Meadows in the context of this particular application.

8.9 Traffic Issues

Traffic volumes

8.9.1 It is calculated by the applicant that up to 749 staff will be employed at the site on an ongoing basis when operating at full capacity. Using data from the 2001 Census a modal split for these staff has been estimated. The split has been adjusted to take into account the fact that there are unlikely to be any trips by LRT, by train or foot.

LDV vehicles

8.9.2 The number of car trips is calculated to be up to 1168 vehicles (584 arrivals and 584 departures). This of course will depend on precise employment numbers.

8.9.3 The Environmental Statement states that traffic movements to and from the site will be substantially accommodated within what is already permitted by the 1997 permission for the site.

8.9.4 Due to the physical constraints of the site there will inevitably be a trade off in the range of operations that could possibly take place on the site at any one time.. For example the room taken up in the dry dock for ship decommissioning would potentially be at the expense of rig decommissioning, construction or refurbishment. This will exert a brake on the number of additional staff on the site. Car parking provision is to be made within the site for up to 760 vehicles. This is to the satisfaction of the Highway Engineer.

HGV vehicles

8.9.5 HGV movements associated with the decommissioning, refurbishment, repair or construction of ships are expected to amount to 4 vehicles (2 in and 2 out) per day. There would be a further 100 movements associated with other site activities such as turbine manufacture which can easily be absorbed within the existing consented limit of 248.5 vehicles.

8.9.6 The applicant is also willing to enter into a planning agreement to operate a travel plan which will seek to limit car use to the site.

8.9.7 The traffic impact assessment concludes that the development will not result in any significant detrimental safety or capacity issues on the Highway Agency's trunk road network.

8.9.8 There is no objection to the proposed project from the Council's Highway Authority or from the Highways Agency.

8.9.9 Able UK undertake not to increase other operations on site such that the aggregated traffic movements exceed those allowed by virtue of the 1997 consent. The exception is proposed rail movements.

Rail traffic

8.9.10 It is expected that the proposed rail link into the site will be used by up to 6 rail movements per day (3 trains in and 3 out).

8.9.11 It is therefore not expected that traffic impacts will result in any environmental impact beyond what was consented in 1997.

Marine traffic

8.9.12 The study notes that most recyclable material would leave for the site by sea generating approximately one shipping movement per week. In addition there would be 0-4 ship movements per week associated with decommissioning. This level would be accommodated within the 8.75 total movements approved in the 1997 consent.

Movements of traffic through Seaton Carew

8.9.13 It is considered likely that a vast majority of traffic leaving or entering the site would use either Brenda Road or Tees Road westbound depending on direction of travel. Travelling through Seaton Carew would be a less direct route to the wider highway network and as such there would be a lack of incentive for traffic to do so. This is not therefore considered to be a significant issue.

8.10 Other matters

Adequacy of investigation of potential alternative sites

8.10.1 The environmental impact regulations require an Environmental Statement to contain an outline of the main alternatives studied by the applicant and an indication of the main reasons for his choice, taking into account the environmental effects.

8.10.2 Section 5 of the Environmental Statement indicates that insofar as a yard is most efficiently used if it serves the oil and gas exploration industries as well as ships, the east side of England or Scotland would be the preferable location on the basis of the proximity principle.

8.10.3 The Environmental Statement indicates that there is currently a lack of comparable facilities in the U.K. on the scale of the site proposed at Graythorp. It notes that there are smaller scale facilities on the south side of the Humber, on the northern tributary to Portsmouth Harbour and at Fleetwood in the North–West. Apart from being smaller in scale these sites would be outside the ownership of the applicant and as such there are acquisition constraints.

8.10.4 The application site was originally constructed as a ship building yard and at present already refurbishes and decommissions marine structures. The labour skills and industrial processes involved in current site operations are therefore very similar to those proposed by virtue of this project.

8.10.5 As indicated in section 8.2.2, the site would provide the largest dry dock in Europe and as such would be able to accommodate a uniquely wide range of vessels.

8.10.6 Clearly a larger site such as this offers the benefit of potentially being able to accommodate a greater range of ship sizes, making it more flexible in terms of coping with demand and reducing the need for further sites.

8.10.7 In the ES, the applicant states that there is only one ship in the world that would have difficulty fitting into the dock (the Jahre Viking). It states that TERRC is the only end of life yard being considered that would be physically able to cope with very large crude carriers and ultra large crude carriers (the largest class and size of vessels. Without TERRC the UK would be unable to deal with the aforementioned classes of ship.

8.10.8 Also, it is acknowledged that the Graythorp site is not the only site in the United Kingdom on which a new turbine fabrication plant could be located. However, the site is immediately available and benefits from road and rail connections and a deep water berth which are required to take offshore turbines to their intended locations.

8.10.9 These factors are therefore considered to present a strong case for the proposed development on grounds of site location. Providing the proposal is considered to be acceptable in environmental terms, taking account that this is a very sensitive location there is not considered to be a need to consider alternative siting in any greater depth.

Lack of quality management systems / questions of post scheme monitoring programmes

8.10.10 The operation of the site would be subject to a range of controls and monitoring regimes that would be enforced through planning conditions and agreements and through legislation operated by other bodies such as the Health and Safety Executive and the Environment Agency.

Financing erection of dry dock / taxpayers money

8.10.11 At the present time the project is proposed to be entirely privately financed by the company. There will be no taxpayer's contribution. However in the event that support funding becomes available the company would wish to apply for it accordingly.

Requirement for ships to be returned

8.10.12 In the event that planning permission is refused, the Environment Agency would be faced with a decision either to allow the four ships currently moored at TERRC to remain in their present position or to be removed.

Need for independent study of issues

8.10.13 The E.I.A. regulations clearly put the responsibility for preparation of an Environmental Statement onto the applicant. In this case the Environmental Statement has been based on information originally prepared by an independent

team of environmental consultants (RPS) to which various other independent consultants have contributed expertise. The document including any supplementary information has been reviewed by relevant Council Officers in consultation with Natural England and the Environment Agency taking account of other consultees comments. Whilst it is considered that an independent study is not necessary or appropriate, the Council has used the services of its consultants, Scott Wilson Ltd, to help prepare this Committee Report.

Consideration by councillors – should be a matter for gov. policy / public inquiry

8.10.14 The planning application will be decided by the Council's planning committee taking account of relevant national, regional and local policies and other material planning considerations. The original decision of the Planning Committee to refuse the applications will shortly be subject to a Public Inquiry. Indeed Friends of the Earth have suggested that the Council should not determine the application in these circumstances. Although regulations provide for this they do not preclude the Committee from determining the current applications. Given that the Council determined not to resist appeals against the refused applications it would be unreasonable not to determine the applications.

Impact on power station

8.10.15 The Environmental Statement makes the following statement with regard to the impact of the project on the power station cooling water intake.

> 'The geomorphology modelling and assessment is detailed in the Pethick report in Appendix 20.1 herein. It concludes (Appendix 20.1, section 6.1) that hard engineered shore defences are required along the shoreline between the east end of Quay 11 and the BE Power Station cooling water (CW) intake. Therefore sheet piling to protect the shoreline will be installed to a height of 5m AOD. One mooring bollard will be constructed within the footprint of the proposed construction, with operational access to it as shown on Drawing No. TC 02041A (Figure 3.2.1). There is an existing sheet piling training wall to protect the Power Station cooling water intake and, following discussions with British Energy, it is proposed to reinforce this existing feature. The Seal Hide will therefore remain in its existing location'.

8.10.16 This then explains the reason behind the proposal to remove the 0.56 ha of inter-tidal area. In general the statement also proposes to avoid dredging quays 10 and 11 during spring tides in order to avoid excessive sediment intake.

8.10.17 British Energy has not objected to the proposal subject to conditions that would allow them to consider detailed safety issues prior to the commencement of engineering and dredging works in the vicinity of their site.

Impact of wind farms on wildlife interests

8.10.18 The planning application includes a proposal to manufacture wind turbine equipment. The environmental impact of these manufactured structures when in situ and operational is beyond the scope of this Environmental Statement.

Landscape and visual matters

8.10.19 The Environmental Statement concludes that the treatment of ships will impact on visual amenity but that due to the industrial location of the site will be of minor significance. The Environmental Statement does identify that there will be significant effects on the Greatham Creek and Power Station observation hides but these will be short term effects and will reduce to minor significance once the operational phase is reached. Also, whilst views to the west and southwest will from time to time be slightly obscured by moored vessels, there will be no interference with views directly across the channel to Seal Sands.

Property devaluation

8.10.20 In the Government's document 'Planning system – General principles' the following statement is made.

> "The planning system does not exist to protect the private interests of one person against the activities of another, although private interests may coincide with the public interest in some cases. It can be difficult to distinguish between public and private interests, but this may be necessary on occasion. The basic question is not whether owners and occupiers of neighbouring properties would experience financial or other loss from a particular development, but whether the proposal would unacceptably affect amenities and the existing use of land and buildings which ought to be protected in the public interest".

8.10.21 Accordingly property devaluation is not regarded as a material planning consideration. Notwithstanding this there has been no evidence presented to demonstrate that the proposed development would result in such an effect.

Appropriate Assessment

8.10.22 As previously indicated the Habitat Regulations require that where a project is likely (in the absence of mitigation) to have a significant effect on a conservation site of international importance, the LPA undertakes an appropriate assessment to specifically determine the effects of the development on this site. The LPA are entitled to require the applicant to supply them with the information they require to make an informed judgment. Natural England has determined that the project is likely to have a significant effect, which meant that the LPA were obliged to undertake an appropriate assessment of the project alone and in combination with other projects in order to determine whether it would have an adverse effect on the integrity of the Special Protection Area (SPA). The LPA's appropriate assessment is provided at Appendix D. The assessment considers the effects of the project in terms of the magnitude of habitat loss, fish mortality, siltation, noise, visual and odour disturbance, toxic contamination, nutrient enrichment and the threat to ecology from invasive species. It concludes that with appropriate planning conditions and

obligations to secure mitigation measures the project would not either alone or in-combination have an adverse affect on the integrity of the SPA. Natural England has confirmed that they will shortly be in a position to sign off the appropriate assessment.

9. Conclusion

9.1 It is considered that the proposed development would be in keeping with the Government's UK Ship Recycling Strategy (February 2007). Furthermore regional and local plan policy identify this area as an acceptable location in principle for heavy industrial activities. The relevant Local Plan Policy (Ind 5j) states that Graythorp yard may be a suitable location for a range of industrial uses including marine and offshore activities.

9.2 The Environmental Statement concludes that the project without mitigation will cause certain adverse environmental affects. However with mitigation these impacts can be reduced to neutral over time. In addition compensatory and monitoring measures are proposed to be secured through planning agreement with the applicant. There would be a minor long term adverse effect on a relatively small portion of the Greenabella Marsh SSSI due to noise emanating from the metal shear. The Environmental Statement and previous monitoring suggests that this should not be significant.

9.3 This must be balanced against the positive effects of the development including job creation and the potential to provide modern, safe and environmentally acceptable ship recycling facilities. The proposal is considered to present a major opportunity for the area to demonstrate its green credentials by placing itself at the forefront of the Government's ship recycling agenda.

10.1 Recommendation application H/2007/0543 –Approve subject to the following conditions and planning agreement heads of terms and the final views of Natural England and the Health and Safety Executive (Nuclear Installations Inspectorate).

10.2 Recommendation application H/2007/0544- Approve subject to conditions 2, 4, 5, 15, 16 and 21 (modified) 27 and 29 and planning agreement to secure a programme for the rigorous inspection of the cofferdam for leakage and restrictions on the timing of piling / dredging operations and subject to the final views of Natural England and the Health and Safety Executive (Nuclear Installations Inspectorate).
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10.3 Recommendation application H/2007/0545- Approve subject to conditions 2, 4, 5, 15, 16 and 21 (modified) 27 and 29 and planning agreement to secure a programme for the rigorous inspection of the cofferdam for leakage and restrictions on the timing of piling / dredging operations and subject to the final views of Natural England and the Health and Safety Executive (Nuclear Installations Inspectorate).

1. The development to which this permission relates shall be begun not later than three years from the date of this permission.
Reason: To clarify the period for which the permission is valid.

2. Permission for the cofferdams hereby approved (as shown on drawings reference SP/0/04/12/80 D, SP/0/04/12/81 C and SP/0/04/12/82 C) is valid until 31 October 2012 and any cofferdam erected in accordance with these permissions shall be removed from the site on or before that date unless an amendment is approved by the Local Planning Authority granting an extension of this period.
Reason: To minimise the impact of the assembly and disassembly of the structure and to enable the Local Planning Authority to review the position in light of experience.

3. The materials to be used in the construction of the various buildings hereby approved shall be submitted to and agreed in writing with the LPA prior to commencement of their construction. The buildings shall then be constructed in accordance with the agreed materials.
Reason: In the interests of visual amenity

4. Unless otherwise agreed in writing with the LPA (after taking account of any additional environmental information and subject to any further restrictions in the following conditions the development hereby approved shall be carried out in complete accordance with the findings and mitigation measures contained in the applicant's Environmental Statement, June 2007 and the flood risk assessment as updated August 2007.
Reason: In order to ensure a satisfactory form of development.

5. The proposed shore defence works, including sheet piling, between quay 11

and the power station cooling water intake as detailed in the Environmental Statement, June 2007 and drawing TC 02041 A (Figure 3.2.1) shall be completed prior to both the commencement of dredging works to form the berthing pocket adjacent to quays 10 and 11and to the closure of the dock.
Reason: In the interests of providing protection to the power station frontage.

6. There shall be no dredging operations associated with the formation of the ship berthing pocket adjacent to quays 10 and 11 during spring tides as defined within the Environmental Statement.
Reason: In order to manage risk factors associated with the cooling water intake system serving the power station.

7. Unless otherwise agreed with the Local planning Authority Pressurised gasses for the purposes of industrial activities on the site shall not be used or stored within 5 metres of any transport route, installation or the site boundary.
Reason: In the interests of safety.

8. The decommissioning (as defined in the Environmental Statement) of the external structure of ships (see definition at footnote 1) shall only occur in dry dock conditions within areas to be delineated on a plan to be submitted to and agreed by the Local planning Authority.
Reason: In the interests of environmental protection.

9. Decomissioning (as defined in the Environmental Statement) work on ships[1] within the dry dock shall not be commenced until drainage and dock floor arrangements for the site as proposed within the Environmental Statement have been constructed and brought into operation.
Reason: In the interests of environmental protection.

10. Unless otherwise agreed in writing with the Local Planning Authority, except in an emergency, no repair or refurbishment work(s) shall be undertaken to the external parts of any ship(s)[1] in any wet dock location which would give rise to contamination of the environment through harmful release of fumes, dust, smells, liquids or solids or otherwise cause disturbance (including but not exclusively relating to visual or noise disturbance) of the Teesmouth and Cleveland Coast SPA or features for which the SPA has been designated.

An emergency situation means a situation which is expected to arise or has arisen on a vessel moored at quays 1, 10 or 11 that threatens:
a) the health of or injury to personnel
b) harm to any protected species or designated habitats or the local ecosystem.
c) to pollute water in the Seaton or Tees Channel, or in the River Tees or the local atmosphere.
Reason: In the interests of environmental protection.

11. No ships carrying military armaments including nuclear armaments, nuclear power units or nuclear fuels shall be allowed into the TERRC site for decommissioning repair or refurbishment.
Reason: In the interests of environmental protection.

12. Prior to the development being brought into use details of measures to manage the suppression of dust emanating from the site shall be submitted to and agreed with the LPA. Thereafter no works permitted by this permission which could give rise to dust releases shall be undertaken unless the approved measures are in place and operable.
Reason: In the interests of environmental protection.

13. The development hereby permitted shall not be commenced until:

a) A desk-top study is carried out to identify and evaluate all potential sources of contamination and the impacts on land and/or controlled waters, relevant to the site and two copies of the study shall be submitted to and approved in writing by the Local Planning Authority and any of the consequential actions set out in b-e found to be necessary taken. The desk-top study shall establish a 'conceptual site model' and identify all plausible pollutant linkages. Furthermore, the assessment shall set objectives for intrusive site investigation works/ Quantitative Risk Assessment (or state if none required).

If identified as being required following the completion of the desk-top study,

b) The application site shall be subjected to a detailed scheme for the investigation and recording of contamination, and remediation objectives be determined through risk assessment, and agreed in writing with the Local Planning Authority

c) Detailed proposals for the removal, containment or otherwise rendering harmless of any contamination (the 'Reclamation Method Statement') be submitted to and approved in writing by the Local Planning Authority.

d) The works specified in the Reclamation Method Statement be completed in accordance with the approved scheme.

e) If during reclamation or redevelopment works any contamination is identified that has not been considered in the Reclamation Method Statement, then remediation proposals for this material should be agreed with the Local Planning Authority before reclamation / redevelopment continues.
Reason: In the interests of environmental protection

14 Details of the siting and design of each fixed container to be used for the storage of substances relating to by-products from the uses hereby approved or on-site activities shall be submitted to and approved by the Local Planning Authority before such containers are constructed or brought onto the site. Thereafter the container shall be sited and constructed in accordance with such approved details.
Reason: In order to safeguard the environment

15. There shall be no dredging of the Seaton Channel or the holding basin during critical fish spawning season months of February and March.
Reason: In order to safeguard against potential smothering of shallow water spawning grounds.

16. No dredging, piling or cofferdam assembly / disassembly operations shall be undertaken in the period 2 hours either side of low tide during the months of November, December, January and February and between 15 June and 31 August inclusive (all piling operations to adopt "soft start procedures" whereby the increase in noise is progressive). There shall be no dredging of the channel from high tide to 3 hours after high tide during May. Comprehensive monitoring of the dredging operations must be carried out in accordance with the mitigation strategy outlined in the Environmental Statement.
Reason: In order to avoid disturbance to feeding/roosting birds using the Teesmouth and Cleveland Coast SPA and Seal Sands SSSI mudflats, to avoid disturbance to seals rearing pups and to protect migratory fish smolts.

17. Subject to the exception at i) below, the acoustic and visual barrier hereby approved is to be constructed and in place along the boundary of the site bordering Greenabella Marsh (as indicated drawing SP/0/04 SP/0/04/1280D) prior to the metal shear being brought into operation.

i) A period of 1 month to be allowed to test / verify noise emissions from the metal shear (without the acoustic barrier in place) in terms of the impact of noise on Greenabella Marsh in order to inform the appropriate final design of the acoustic barrier. The testing should include a range of metal shear operations encompassing different sized and gauged materials and operating under a range of different conditions reflecting normal and worst case use. The locations and measurement parameters to be used and recorded during the noise testing period (including whether continuous or discrete, and the spectral sound pressure levels to be examined) are to be agreed with the LPA prior to the start of testing. Unless otherwise agreed with the Local planning Authority, the testing will be undertaken during the month of June so as to cause least disturbance to the avifauna present on Greenabella Marsh. The applicant to give one month's notice to the LPA of the date that testing will commence along with notice of the dates of commencement and completion of testing. The subsequent noise modelling parameters that will be used to determine the final design of the acoustic barrier are to be based on a worst-case scenario (specifically including predicted L_{eq} and L_{max} operational noise levels to be experienced at Greenabella Marsh, and hence impact to birds), and are to be submitted to the LPA (in terms of predicted noise contour plots and tabulated data at a number of receptor points with and without mitigation in place) for approval prior to the construction of the acoustic barrier. The final design shall remove the line of sight between the metal shear operations and Greenabella Marsh. Further, that operational noise monitoring (criteria to be agreed with the LPA, but to include both L_{eq} and L_{max}) be subsequently undertaken during a period of normal (and worst case) operations to confirm that the performance of the completed acoustic barrier meets or exceeds the agreed parameters associated with the final design. The LPA are to be given 1 months notice of such monitoring work, and permitted to witness operations and take independent measurements at their discretion. Separately, a programme of bird monitoring at Greenabella Marsh is to be undertaken and submitted to the LPA initially within 18 months, and then annually for five years following construction of the acoustic barrier, to demonstrate that there is no significant effect of noise on bird populations or the use of the area by birds compared to historic baseline records.

Reason: In the interests of protecting the nature conservation interest of Greenabella Marsh.

18. All lighting associated with the development shall be directed into the site and shall be progressively converted to sodium lights in accordance with a programme to be agreed with the LPA before decommissioning work commences.
Reason: To avoid disturbance to birds and using the SPA and SSSI roosting sites.

19. Pre-construction surveys for amphibians and reptiles shall be carried out and any necessary mitigation measures introduced in accordance with the terms of the Conservation Management Plan.
Reason: To ensure no adverse impact upon amphibian and reptile populations.

20. Ditch, wetland and neutral grassland habitats in the north and east of the TERRC site shall be replaced/enhanced, as described in the Conservation Management Plan, the timing and specific details of which shall be submitted to and agreed with the LPA prior to the commencement of development.
Reason: To ensure protection of ecological habitats.

21. The various operational developments proposed along the frontage of the Seaton Channel comprising quay, cofferdam and gate construction shall be completed to a minimum level of 5.2 metres A.O.D.
Reason: In order to safeguard against the risk of flooding.

22. All bunding to contaminated waste storage areas shall be completed to a minimum height of 5.2 metres A.O.D.
Reason: In order to safeguard against the risk of flooding.

23. All watercourses running along the boundaries of the site shall be kept free from obstruction at all times.
Reason: In order to prevent the risk of flooding.

24. Prior to any part of the development hereby approved being brought into operation, provision for cycle storage shall be made in accordance with details (numbers and location) to be previously agreed with the Local Planning Authority.
Reason: To promote transport to the site by means other than the private car.

25. Unless otherwise agreed in writing with the Local Planning Authority, prior to any part of the development hereby approved being commenced a central reserve area on Tees Road allowing for vehicles waiting to turn right into the site shall be provided in accordance with details to be previously submitted to and agreed with the Local Planning Authority
Reason: In the interests of highway safety.

26. Before any development commences an emergency response plan detailing emergency procedures to be undertaken in the event of an on-site or off-site incident shall be submitted to and agreed in writing with the LPA. The approved Emergency Response Plan shall then be in place before any works commence on site.
Reason: In the interests of safety and environmental protection.

27. Prior to commencement of development, details of all drainage systems on site including:

i) details of the drainage of the dock floor, the clay bund and sumps
ii) details of drainage for areas of existing and proposed hardstanding

shall be submitted to and approved in writing by the Local Planning Authority. Thereafter the drainage systems shall be implemented only in accordance with the agreed details unless otherwise agreed with the LPA.
Reason: In the interests of environmental protection.

28. Prior to the development hereby approved being brought into operation a wheel washing facility to service vehicles leaving the site shall be installed in accordance with details to be previously agreed with the LPA. The wheel washer shall remain operational and used at all times when conditions would result in mud being deposited on the highway.
Reason: In the interests of highway safety and environmental protection

29. Contamination of any solid material within or water passing through the dry dock shall be dealt with in full accordance with the drainage and dock cleaning strategy set out in the Environmental Statement.
Reason: In the interests of environmental protection.

30. No development approved by this permission shall be commenced until a scheme for the storage and disposal of residual sediments has been submitted to and approved in writing by the LPA.
Reason: In the interests of environmental protection

31. Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound should be at least equivalent to the capacity of the tank plus 10%. If there is multiple tankage, the compound should be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses must be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework should be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets should be detailed to discharge downwards into the bund.
Reason: To prevent pollution of the water environment.

32. Unless otherwise agreed in writing with the Local Planning Authority, Prior to being discharged into any watercourse, surface water sewer or soakaway system, all surface water drainage from parking areas and hardstandings shall be passed through an oil interceptor designed and constructed to have a capacity and details compatible with the site being drained. Roof water shall not pass through the interceptor.
Reason: To prevent pollution of the water environment.

33. Inspection manholes shall be provided and clearly identified on foul and surface water drainage systems, in accordance with a scheme to be submitted to

and approved by the Local Planning Authority.
Reason: To enable discharges from individual premises or buildings to be inspected and sampled.

34. No part of the septic tank or private treatment system (including ancillary soakaway system) shall be sited within 10 metres of any watercourse, ditch or surface water feature nor within 50 metres of any water abstraction or well.
Reason: To prevent pollution of the water environment.

35 There shall be no discharge of contaminated drainage from the site into either groundwater or any surface waters, whether direct or via soakaways.
Reason: To prevent pollution of the water environment.

36. No development approved by this permission shall be commenced until a scheme for the conveyance of foul drainage to a private treatment plant has been submitted to and approved in writing by the Local Planning Authority. No part of the development shall be brought into use until such treatment plant has been constructed and shall thereafter be retained throughout the life of the development.
Reason: To prevent pollution of the water environment.

37. Roof drainage downwater pipes shall at all times be sealed at ground level to prevent the ingress of any contaminated water / run-off.
Reason: To prevent pollution of the water environment.

38. Prior to the commencement of any works on site, a settlement facility for the removal of suspended solids from surface water run-off during construction works shall be provided in accordance with details previously submitted to and approved in writing by the LPA. The approved scheme shall be retained throughout the construction period.
Reason: To prevent pollution of the water environment.

39. A Ballast Water Management Plan (BWMP) should be prepared for each ship (or consignment of ships if similar type and origin) in advance of importing the vessel(s). Exchange of ballast water on the high seas should always be the preferred option in accordance with the IMO guidelines. Treatment at the site should only be considered as a last resort and would be subject to approval by the LPA and obtaining the relevant Consent to Discharge from the Environment Agency. As this is the least favourable environmental option it should not be relied upon and prior approval via the BWMP should be sought.
Reason: To avoid pollution of the water environment.

40. Monitoring of sedimentation/erosion rates on the adjacent mudflats must be undertaken and the contribution of the dredge arisings to any changes should be quantified. Should mitigation in the form of beneficial use of arisings be considered to be appropriate, this should be undertaken with the detailed approval and agreement of the Local Planning Authority.
Reason: To protect the estuarine ecology

41. No development approved by this permission shall be commenced until a scheme for the whole site drainage has been submitted to and approved in writing by

the Local Planning Authority
Reason: To avoid pollution of the water environment and to ensure a holistic drainage strategy for the whole site is achieved.

42. No equipment or property greater than 2 metres in height shall be stored within 5 metres of the power station security fence.

Reason: In the interests of protecting the security of the power station

43. Unless otherwise agreed in writing with the Local Planning Authority no development shall take place directly beneath the overhead electricity transmission lines crossing the northern part of the site.
Reason: in the interests of safety

44. No works for the construction of quay 11 or capital dredging operations adjacent to quays 10 or 11 shall take place until full details of the engineering operations associated with the construction of quay 11 and the protection of the power station frontage and full details of the capital dredging operations adjacent to quays 10 or 11 have been submitted to and agreed in writing by the LPA in consultation with British Energy and the H.S.E.
Reason: In order to ensure that there is no detrimental impact on the power station frontage and its cooling water systems.

45. The proposed quays 10 and 11 shall not be brought into use until a risk assessment concerning all aspects of the proposed use of quays 10 and 11 has been submitted to and agreed in writing with the Local Planning Authority in consultation with British Energy and the H.S.E. Thereafter development shall be carried out in accordance with the approved details.

Reason:To ensure that the power station is adequately protected from any risk to safety and security

46. Unless otherwise agreed with the Local Planning Authority, there shall be no operations undertaken on the site which involve the use of propane within 5 metres of the power station security fence.
Reason: in the interests of safety

Draft Section 106 agreement Heads of terms

The applicant undertakes the following:-

1. Compensatory requirements

a) The applicant undertakes to make payments for the creation of 1.5 hectares of replacement intertidal habitat, such payments to cover the costs, as relevant, of land acquisition, infrastructure works, means of enclosure, any other physical works necessary to create and safeguard the habitat as a site, and any other works for the

environmental benefit of the area as the applicant and the local planning authority shall agree the details of such scheme to be agreed in writing between the applicant and the Local Planning Authority. Such payments are to be made in accordance with the following schedule:-

i) £50,000 to be paid prior to commencement of work on Quay 11;
ii) £50,000 to be paid on or within 12 months of i) above;
iii) £50,000 to be paid on or within 6 months of ii) above.

The Local Planning Authority undertakes to pay the above sums into an interest-bearing account on the basis that it will hold the monies together with any interest accruing for the purpose of creation of replacement habitat. In the event that any part of the said monies is not expended for this purpose of creation of replacement habitat, by 1st October 2013, the unexpended balance of the said monies together with any accrued interest shall be repaid to the applicant within 28 days of the applicant's request for the same.

b) Subject to the findings of the monitoring programme (set out under item 4b), and with the agreement of all relevant statutory parties institute sediment feeding via a suitable engineering technique using maintenance and/or other dredge arisings to help replenish sediment supply to Seal Sands and the north shore of the Seaton Channel.

c) To provide replacement / enhancement of grassland / wetland habitat within the site (inclusive of sand dumps to be incorporated within the proposed acoustic barrier and grass re-established there), the timing and specific details of which shall be submitted to and agreed with the LPA prior to the commencement of development.

2. Channel stabilisation requirements

a) As part of the channel dredge to construct stable channel banks in accordance with the Environmental Statement (June 2007), subject to monitoring regime below.

b) Provide a dredging plan to include a contingency plan incorporating possible remedial action should slope failure occur. To be produced and agreed prior to the commencement of any dredging.

3. Monitoring requirements

a) To implement the environmental monitoring regime set out below (programme to be agreed). Monitoring will be undertaken by a competent environmental manager or ecological clerk of works appointed by the LPA and funded by Able UK, operating independently of Able UK and having no other interests in Able UK's operations. The person should be equipped with the ability and resources to draw on specialist companies to support as needed in the fields of ecology and environmental practice including the capability to regularly inspect the condition of ships awaiting repair or dismantling and appraise the rate of deterioration and risk of future leakage.

b) The findings of the environmental monitoring regime will be reported to the LPA.

c) The LPA will stipulate any reasonable requirements pursuant to ecological and environmental protection stemming from the findings of the monitoring regime.

d) The applicant will carry out any requirements specified in 3c) above in accordance with a programme to be agreed.

4 Monitoring Regime

a) Pre-dredging bathymetry surveys in accordance with specification to be agreed with the LPA to check stability of Seaton Channel. Findings to be reported to and agreed by the LPA prior to commencement of capital dredging within the Seaton Channel. Following completion of the capital dredge, a bathymetric survey will be instituted to verify compliance with slope design parameters. Thereafter an annual bathymetry survey will be undertaken to enable channel stability to be monitored and to determine the position of any change to the inter-tidal areas to include mean high (MHWS) and low (MLWS) water contours and surface surveys of the intertidal areas.

b) Monitoring of SPA sedimentation and the need for and effectiveness of the use of supplementary sediment feeding by a suitable technique, using either maintenance dredge arisings or other suitable material.

c) The development and establishment of new replacement habitat as specified in section 7 of the Conservation Management Plan.

d) The quantities of suspended solid in channel water during dredging operations.

e) Monitoring of water quality at four locations in the vicinity of the site for the suite of determinands listed in paragraph 8.2.10 of the Environmental Statement (June 2007) at least once a month

f) Adequate biosecurity protection measures.

g) Noise monitoring on Greenabella Marsh.

h) Inspection of coffer dam / dock gates for leakage.

i) Inspection regime of the dock floor prior to flooding.

j) Dust monitoring.

k) One full winter season's bird survey (October to March inclusive) of sectors DT05, DT018 and DT019 to be carried out upon completion of dredging and piling construction works. Surveys to be conducted twice monthly and to cover 2 hours before low tide and 2 hours after low tide.

l) Review the INCA seal monitoring programme through T.E.A.G. with a view to

revising operations subject to findings.

5. Restrictions

a) Not to admit to the site or undertake any use or operational development involving any leaking and / or stricken vessels or any vessel with an unstable cargo or with ineffective means of containment of cargoes, fuels or lubricants giving rise to a risk of escape and consequential pollution of the environment.

b) No dredging, piling or cofferdam assembly/disassembly operations shall be undertaken +2 or –2 hours either side of low tide during the months of November, December, January and February and between 15 June and 31 August inclusive (all piling operations to adopt "soft start procedures" whereby the increase in noise is progressive).

c) There shall be no capital or maintenance dredging of the Seaton Channel or the holding basin during critical fish spawning season months of February and March.

6. Other – Details to be agreed prior to development

a) Travel Plan provision

b) Bus stop improvements

c) Targeted training and recruitment towards local labour sources

d) Subject to further discussion provision of a footpath linking the bus stop to the entrance to the site

Notes

HBC to consult with TEAG members
TEAG Group to review and monitor progress

Findings of monitoring regime detailed in this agreement shall be reviewed by TEAG and any necessary variations in further monitoring and mitigation shall be agreed between the applicant and the LPA

APPENDIX A

Seaton Port Teesside Environmental

Reclamation and Recycling Centre Facility

Environmental Impact Statement – Readers Guide

June 2007

Prepared by:
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June 2007
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READERS GUIDE

For reader's familiar with the November 2005 EIS and subsequent Supplementary Documents of January 2006 and April 2006 this guide has been produced to assist with the understanding of the assimilation of those documents into this June 2007 EIS and the reading thereof.

1. **New Legislation**

This June 2007 EIS incorporates the legislative changes to date;

- Asbestos Regulations 2006
- CDM Regulations 2007
- Trans-Frontier Shipment (TFS) Regulations July 2007
- Marine Works Regulations 2007

In nearly all cases the incorporation of these new legislations are merely referential for example observe 35.1.4.

2. **New Government Documents**

The DEFRA Government documents setting out UK Ship Recycling Guidelines and UK Ship Recycling Strategy are included in Section 4.1.5.

3. **Other Changes**

The other changes which have occurred throughout the duration of the TERRC planning process since November 2005 and how they are dealt with are explained thus:

(i) The change of title of English Nature to Natural England has been applied throughout the document.

(ii) The updating of planning policy has been undertaken by Blackett Hart & Pratt and this is included in Section 2.

(iii) The fish mortality study is included in Section 16.

(iv) The further DNV modelling work and optimisation and slope stability modelling is included in Section 16.

(v) The bird survey for Winter 2005/2006 is included in Section 17.

(vi) The marine development assessments are included in Section 20.

(vii) The Environmental Agency landfill waste capacity figures have been updated and these are reflected in Section 31.

(viii) The PD Teesport Northern Gateway Container Terminal planning application has been presented and consented therefore the incombination effect of this development is included in Section 35.

(ix) The full statement table of mitigation is included in Section 36.

(x) The non-technical summary has been re-written accordingly to this June 2007 EIS and this is included in Section 37.

Therefore the main sections with additions and changes to the November 2005 EIS baseline, incorporated into the June 2007 EIS are as follows:

- Section 2 Planning & Policy Context.
- Section 5 Choice of Site.
- Section 16 General Impacts on Marine Estuarine Ecology.
- Section 17 Effects on Water Birds.
- Section 20 Hydrological and Hydrodynamic Effects.
- Section 30 Landscape and Visual Assessment (relating to the retention of the observation seal hide).
- Section 36 Mitigation
- Section 37 Non-Technical Summary

4. **New Appendices**

The following Appendices have been added to the original November 2005 EIS in support of the above and these are presented in the June 2007 EIS as follows. These Appendices have been drawn from Supplementary Document January 2006 and Supplementary Document April 2006 and renumbered accordingly:

(i) Appendix 4.2 DEFRA Draft Guidance "Overview of the Ship Recycling Process in the UK" - March 2006

(ii) Appendix 4.3 DEFRA published documents: "UK Ship Recycling Strategy" and Guidance "Overview of Ship Recycling in the UK" - February 2007

(iii) Appendix 5.1 ULCC Arrival Plan Drawing TC-02056 B, (Figure 37.4.3)

(iv) Appendix 14.3 TERRC, Seaton Port, Teesside: Great Crested Newt Survey & Assessment – Just Ecology; June 2006

(v) Appendix 16.1

c. DNV report: Further modelling of hydrodynamics and sediment transportation form developments at the TERRC site – (DNV presentation report No. 2006-0315 rev No.2)

d. DNV report: Further modelling of hydrodynamics from developments at TERRC site – Scenario 11 (DNV report No. 2006-0416 rev No.1)

e. DNV report: Tidal propagation modelling and quantification – (DNV Memo CGARM/194628 – Investigation of changes in water surface elevations)

f. DNV report: Seaton Channel – Side slope stability, Rev 1 (DNV Subsea and Foundation report memo TNCN0784/HOLME/78400000-J-233)

g. Foundation & Exploration Services report undertaken for Tees and Hartlepool Port Authority (contract No. 1161, dated March 1989)

(vi) Appendix 16.6 APEM report TC855 – Seaton Channel Macroinvertebrate Sampling October 2005

(vii) Appendix 17.3 Teesmouth Bird Club; winter 2005/2006 – BIRD SURVEY TERRC FACILITY April 2006

(viii) Appendix 20.1 Report by Professor John Pethick – Seaton Channel: Geomorphological modelling, dated March 2006

(ix) Appendix 20.2 Correspondence between CEFAS and ABLE UK December 2005

(x) Appendix 20.3 DNV correspondence dated November 2005, April 2006, May 2006.

(xi) Appendix 20.4 CEFAS sampling results data sheets etc.

(xii) Appendix 35.1 In-combination assessment for the Northern Gateway Container Terminal April 2006 for PD Teesport by Royal Hakoning.

(xiii) Appendix 36.1 15-2-2006 Photograph of the 0.56 ha of SSSI intertidal area proposed to be lost due to Quay 10 and 11 constructions.

5. **General**

In order to further assist the readers, the numbering of the sections and paragraphs of the EIS remain unaltered compared to the November 2005 EIS. Where new material has been added at the end of a section then the numbering continues for example observe 10.3.6. Where new material is added into the middle of a section then in order not to corrupt the paragraph numbering system, the new paragraphs are sequentially numbered with an alphabet suffix for example observe 16.3.8a, etc.

Apart from the New Legislation and New Government Documents identified in 1. and 2. above, no new material for assessment has been included and no new assessment from previously material has been made beyond that forwarded in the conclusion of Supplementary Document No. 2 dated April 2006.

Finally readers are drawn to the status of the Working Plan and Compliance Plan which are presented as draft documents in this EIS and these are presented to the current status albeit they are subject to change as they are documents associated with the application for the new Waste Management Licence and are therefore subject to the Environment Agency's waste management licence process.

The preparation of this June 2007 EIS has benefited from the extensive and exhaustive consultations undertaken as part of the previous planning application and associated process.

I trust that the above will assist you in reading what is necessarily a substantial document if you are familiar with the November EIS and subsequent documentation. However, should you be a reader not in that position, then the above assists in explaining where the developments have occurred over the duration of the application process to where we are today in this new submission and new EIS.

GLYN WHEELER
Managing Director – Able UK

Rationale for and description of development (extracted from Environmental Statement)

Need for the Development

Sooner or later every ship comes to the end of its life. Most ships are currently sold for dismantling, often passing through several brokers before reaching the beaches of Pakistan, India, Bangladesh. There are very few environmental or health and safety controls exercised in many of these locations.

Elliott Morley, the then Environment Minister, has referred to the recycling of ships as a big and growing global trade. He has identified both the lack of top quality facilities available to carry out this work and the need to develop such capabilities. In November 2004 the House of Commons Environment Food and Rural Affairs Committee noted that the United Kingdom has the potential to establish facilities where ship recycling can be done safely with economic benefit to the communities in which it is carried out. There is a need for the United Kingdom to have at least one facility where ships can be recycled in the United Kingdom. Up to now this need remains unfulfilled.

The Government has recently revised downwards the national target for reductions in carbon dioxide emissions. Originally set at 20% reduction the revised target is 12.5% and on the basis of recent trends even this may be difficult to achieve. There is a strong argument for expansion of energy production from renewable sources, wind turbines being within this category.

Choice of Site

Following the logic of the House of Commons Committee that the United Kingdom should have ship recycling facilities the question is then, on which coastline. The east coast of England or Scotland is a first choice as it is a better location for ships from Europe and it is the home of the North Sea oil and gas production industry. Teesmouth in the centre of the North Sea with its sheltered bay, is a favourable choice being a major maritime port with a workforce with all the historic skills of ship and rig construction. The Graythorp yard has a long history of ship and rig fabrication and in more recent years rig decommissioning. ABLE has demonstrated its capabilities in the demolition and decommissioning industry while maintaining an excellent safety and environmental record essential to this kind of work.

However, the choice of the Graythorp yard is not without potential sensitivities. It has a number of sites nearby where wildlife is protected. Seal Sands for example, has international Special Protection Area (SPA) status. There are other nearby Sites of Special Scientific Interest (SSSI). This EIS evaluates the risk of environmental harm to these areas and acknowledges the fact that unless the proposals can be implemented without the risk of adversely affecting the population of protected species and habitats, consent would not be appropriate.

The Graythorp site is not the only site in the United Kingdom on which a new turbine fabrication plant could be located. However, the site is immediately available and it does have the necessary road and rail connections and a deep water berth which is needed to take offshore turbines to their intended locations. There is only one ship in the world (the Jahre Viking) which would have difficulty fitting into the TERRC dock. The Graythorp yard is big enough to accommodate all other vessels without difficulty. No other facility being considered as a possible end of life yard can offer this advantage, so that without TERRC, the UK could not decommission the ultra large crude oil carriers which bring essential oil imports to our refineries. Both Very Large Crude Carriers (VLCC) and Ultra Large Crude Carriers (ULCC), (being indicative of the largest class and sizes of vessels) can be manoeuvred through the proposed navigable channel proposed by this application and accommodated into the Dry Dock. Verification of the proposals to include ULCC's has been undertaken by PD Teesport Harbour Master Authority – the schematic of approach is shown in Figure 37.4.3.

Choice of methodology

The methods of constructing, repairing, refurbishing and decommissioning ships are established. All techniques used will be similar to what has been used on the site previously and the operations will be under the regulations of the Health and Safety Executive (HSE) and the EA.

Where practicable steel sections will be ripped or cut using hydraulic excavators with special attachments rather than using oxygen propane torches which emit undesirable greenhouse gases. However, the choice of operating methods will be determined by ABLE in a manner that provides the Best Practicable Environmental Option (BPEO).

There is sometimes a choice of servicing ships in the dry dock or working on them in tidal conditions. Decommissioning of vessels (taking them apart) will only be done in dry dock conditions. The repair of the outside of hulls can only be done in a dry dock. The fabrication of replacement sections of a ship will be done on dry land adjacent to the dockside. However, repair and refurbishment of a ship may be done in tidal conditions providing the work will not involve pollution of the dock water.

Wet or Dry Dock

ABLE will only decommission ships on dry land or in the large dry dock. Although the alternative option of decommissioning ships on the quayside in tidal conditions is theoretically available, ABLE considers the risks of unmanageable river pollution to be unacceptable.

These risks centre mainly on the impossibility of controlling pollution of dock water by either chemicals inside or on the surface of hulls or by alien species fouling the outside of the ships but also include the additional risk to workers. Another factor is the additional energy required to decommission a ship afloat reduces the overall benefit to the environment. Operations on the dock floor would be over 14m below the surrounding ground levels, and the top of the dock gates. Noise, dust and visual disturbance (to the SPA) would therefore be minimised.

Preparatory works

Before the dry dock can be used, the cofferdam has to be constructed across the entrance. The Channel will be deepened and new quays will be constructed where the site faces onto the Seaton on Tees Channel. This is likely to take around nine to twelve months but, where it is close to Seal Sands, work will be timed to minimise disturbance and as much of the works as possible will be completed in the summer when the migrating birds for which Seal Sands has an international conservation status, are not present. A gap will be left in the centre of the cofferdam to allow passage of ships. Sediments on the dock floor and from the Channel will be removed by dredging and disposed of at sea (subject to a licence being issued by DEFRA). The analysis of the sediments has been undertaken by CEFAS who have confirmed them to be very similar to those found in the wider Tees River and Estuary, therefore permitting their release at sea. All rock and other material proposed for use in building the cofferdam will be subject to prior testing and analysis and will only be accepted for use if it is sufficiently free from contamination to meet Government standards.

The shoreline frontage from Quay 11 to the British Energy power station will still be reinforced by sheet piling to same height as Quay 11 (5m Above Ordinance Datum – AOD, sea level), and a mooring bollard will be installed. The resulting works are seen as less intrusive, and less likely to disturb the environment in either the short or long term. The observation hide (Seal Hide) on the riverside next to the power station will not now be disturbed and will remain intact in its present position. It is proposed to develop the deepened channel to 85m but to deepen it to 9.5m below LAT – the deepening being a consequence of the mitigation incorporated in the final dredging design to increase safety factors for slope stability. As a result the dredged channel is aligned within the current navigable channel ensuring that the mud banks lying between low and high tide on the south and north sides of the channel are left undisturbed and stable. These inter-tidal mud banks contain worms and other organisms which are the major food supply for the protected birds on the SSSI and SPA. In total 0.56 Ha of inter-tidal banks will still be lost in the current proposals, out of a total inter-tidal area of 189.4 Ha i.e. 0.3%. The affected 0.56 Ha “mud banks” are largely covered with stone and rock (and have been for over 30 years), resulting in this particular mud bank being less plentiful in food source and therefore as a feeding ground for birds this area is used disproportionately less. The 1997 bird survey has been updated for the current 2005/06 winter season and mean bird count records for this latest season show that the affected 0.56 Ha area is being used by 5 birds. The width and shape of the channel has also been designed to ensure that the below sea level side slopes are stable. This has been done by borehole exploration of the geology of the channel, sophisticated computer modelling and reference to British Standard Specifications for below water slope stability for a range of geological materials. Modelling has also assisted with predicting flow patterns in the channel with and without the TERRC dock being open and similarly (to assess long term impacts) with and without the power station abstracting cooling water from the channel. The design of the dredging will therefore not generate erosion or stability problems in the channel but if the dry dock gate is permanently closed the currents in the area of Quay 11 move towards the power station foreshore necessitating this shoreline to be protected by engineered sheet piling shore

defences. In addition it is worth noting that the channel has been for the past many years developing its natural current flows and it has been assessed that even today there is erosion of the SPA in certain areas of around 1m per annum. These patterns of development are not changed by the project and dredging works. There is similar action taking place around the 0.56 Ha inter-tidal area. After the dock is sealed off, dewatered and cleaned out, Quays 6 and 7 will be repaired and the floor of the dock inspected. Much of the floor comprises thick concrete beams. These enclose rectangular areas of stone infill dating from the time when the dock was used for constructing oil rigs. These areas will be inspected and sampled. If the material below the stone is not impermeable it will be made impermeable by covering with compacted clay (to protect groundwater) and any contaminated stone infill will be replaced by clean stone as the final surface of the dock floor.

Passage of Ships to TERRC

ABLE trades in the international market and ships coming to TERRC may come from foreign waters as well as from other parts of the United Kingdom. 37.7.2 Ships arriving for repair or refurbishing will probably sail under their own power and be subject to all the normal maritime regulations. End of life ships coming for recycling would have the majority of all oil and fuel emptied before departure and all cargoes removed. An inventory of any wastes or toxic materials left on board will be compiled before departure so that when it arrives, ABLE (by rechecking the amounts and position of wastes on board) know whether there have been any losses and be fully prepared to deal with all circumstances safely.

It is anticipated that 26 ships for decommissioning will be received at TERRC per year, in two cycles each of around 12 to 15 vessels. 37.7.4 Regulation of the movement of shipping to ensure its safety is by the Government of the country of origin, the United Kingdom Government (if different), national coastguard services, PD Teesport, maritime insurers and the International Maritime Organisation. At the current time some aspects are only the subject of a voluntary code of practice, for example ships should never carry hazardous substances in excess of their need for immediate operational purposes, and each ship should have a green passport,. These may eventually become enforceable, so also may the choice of recycling facilities for British flagged ships be limited to yards operating only to approved technical health, safety and environmental standards. 37.7.5 Ships coming to TERRC will either be taken directly into the dock or be berthed temporarily outside at moorings owned and provided by ABLE or at other berths by prior arrangement with the Port Authority. Prior to any waste removal operations commencing on the ships, the dock entrance or the ship will be sealed off with an oil boom. All ships having waste removed whilst afloat will be inspected on a daily basis for any leakages or damage. The cause of any pollution to the water would be remedied immediately, the vessel would be isolated by use of an oil barrier and as much spillage as practically possible would be retrieved, removed and disposed of. It is not intended to use the river, the turning basin or channel berths as long term ship ‘parks’.

Construction repair refurb and decommissioning methods etc.

Once arrived, each ship will be thoroughly inspected, surveyed and a risk assessment carried out in respect of any potential hazardous substances. A Working Plan will be designed for each ship, be it for repair, refurbishment or decommissioning. This is required by the EA. 37.8.2 Some operations, particularly repair and refurbishment, may be undertaken in tidal conditions, that is, at the quays facing onto the Channel or in the dock with the gates open.

Construction, repair and refurbishment will involve many of the operations common to decommissioning for which the environmental impacts and mitigation measures are described in the following sections. However, construction, repair and refurbishment operations may involve two additional processes, grit blasting and painting. It is envisaged that very little grit blasting would be required but, in the unlikely event that it is, the best available methods will be used to prevent contaminated material escaping and to minimize risk to human health. In many cases it may be possible to use vacuum blasting, which takes place in an isolated unit in closed circuit conditions. Grit blasting would be undertaken to remove unwanted substances adhering to the hulls or surfaces of sections of the ships or to remove loose rust prior to treatment. Where the section to be blasted is small enough to be detached it will be treated within a grit blasting chamber on the dockside. Grit will be contained within the chamber so that it will not be dispersed as dust (Section 15). It will be recycled so long as it is fit to do so. Rejected grit will be analysed and taken to an appropriately licensed waste disposal facility as landfill. Where blasting has to be done in situ, e.g. on a hull or deck, the target area will either be enclosed in sheeting to prevent dispersal of dust or equipment used will be of a design to collect the grit. External treatment of hulls will have to be done in a dry dock. Again used grit will be collected from the containment system, screened and recycled as far as possible. Reject materials will be tested and disposed of at an appropriately licensed waste disposal facility. Activities at TERRC will not involve removal of paints containing TBT's. If during decommissioning activities any such paint flakes off and falls to the dock floor, this will be de minimis, and will be removed and, if necessary, treated in the process of cleaning the dock floor after decommissioning is complete (as detailed in Section 13.2.2). Small-scale operations will be within a spray booth on the dockside. The painting of large sections will be done within the dock, the decks possibly in tidal conditions, external hulls using the dry dock facilities.

Once all ships to be taken into the dock for decommissioning had entered, the entrance would be closed off. Dock water, after testing and consultation with the EA, would be pumped into the Channel. Remaining sediments and marine debris would be removed and disposed of by means authorised by the Environment Agency.

As long as there are ships berthed in the dock and the dock entrance is open to tidal movement the quality of water in the dock will be inspected daily. If upon inspection any contamination is noticed its source will be traced and the pollution removed. If pollution enters the dock, even if containable by boom, it will comprise an 'incident' of which the EA will be immediately notified. Samples of water from the vicinity of the ships will be taken to ensure no contamination remains. The sample will be sent for the following analyses:
• Chemical Oxygen Demand (COD), Total Petroleum Hydrocarbons (TPH), pH, Suspended Solids, Cadmium (Cd), Chromium (Cr), Copper (Cu), Iron (Fe),

Manganese (Mn), Mercury (Hg), Nickel (Ni), Lead (Pb), Zinc (Zn) and Organic Tin (Sn) and Tributyltin (TBT).

It should be noted that ships using Quays 1, 10 and 11 will mostly be in connection with the import and export of general cargoes. No decommissioning of ships will be undertaken at these Quays with one exception. Ships may be stripped of insulation here, but this is quiet work with operatives engaged in this activity being inside the ship. The stripped insulation is double bagged and left inside the ships. It is removed only when the vessel is inside the dry dock.

Where practicable the wastes would first be removed from each ship prior to decommissioning. These are usually likely to be less than around 2% of the weight of the ship. No wastes at all will be disposed of on the TERRC site. All wastes will be containerised on site and then transported to appropriately licensed waste disposal sites using only registered carriers of waste. Some waste may go at the nearby Seaton Meadows landfill site. Some may go to other waste disposal sites in Teesside or even further afield. The annual amount of waste to be generated from operations at TERRC will be around 4,000 to 10,000 tonnes (equal to around 2667 cubic metres to 6667 cubic metres). Landfill sites within the Region currently have a total capacity for 43.4 million tonnes of further tipping so that the contribution from TERRC is 0.023% of the total regional disposal capacity.

After all wastes are removed, and during the decommissioning works any reusable sections or equipment on the ships will be removed and stored for resale. These range from instrumentation to deck cranes, pumps, motors, etc. No ships carrying military weaponry (especially nuclear armaments) will be allowed into the TERRC site for decommissioning. No ships with nuclear engines will be received at TERRC for decommissioning, though the ship would be accepted if the engines had been previously removed. Final decommissioning could be by ripping or cutting the ship into vertical slices starting at each end working to the centre. The operation may use a large slow moving chain saw. Noise and dust from this operation is minimal because of the slow movement. As each section becomes detached it will settle on the dock floor. Here it will be ripped, cut or sheared into smaller sections which will be processed or lifted onto dump trucks and carried to the metal recycling facility. The operations here will further reduce the size of the metal sections and the majority of the processed material will be loaded onto ships moored at the quays and be dispatched for recycling. Other materials, such as brass, bronze, glass, timber, etc will be separated into streams and also sent for recycling. Approximately 98% of the weight of ships taken into TERRC for decommissioning will be recycled. When all ships in the dry dock have been decommissioned and the materials disposed of, the floor of the dock will contain a minor amount of debris from the operations. This waste will be cleaned up, removed and disposed of to an appropriately licensed waste disposal facility using a registered carrier of waste. Once the dock has been cleaned out it will be available for further works, and another cycle of decommissioning will begin.

Dry Dock Completion

Once decommissioning works are completed in the dry dock, a third party consultant will inspect the floor to assess whether or not there is any contamination of the dock. The inspection method statement will be issued to the EA and its written approval will be sought before the assessment takes place. The assessment will include a full visual inspection of the total floor area. This will be done on a grid basis (25m x 25m) The grid inspections will then be reported and identified on a plan which will give descriptions of surface material, suspected contaminants, etc. Where the inspection identifies any suspected areas of contamination the report will detail how the surface sample has been taken and what contaminants have been tested for. The suite of determinands in all but exceptional circumstances will include those set out in Table 13.1 with the addition of the organo-tin range and PAH's. These results will be available to the EA for its consideration, but would be obtained primarily for ABLE to give guidance on the operations necessary for cleaning up the dock floor. The area of the excavated material will then be replaced by a similar clean *granular material to the existing floor (possibly slag) and inspected again by a third party* consultant as described in Section 13.2.2. All of the excavated material which has been removed for testing whether contamination is found or not will be removed and reprocessed or disposed to a suitably licensed facility.

Once the third party consultant has certified quality assurance by written report (CQA) that the floor has been cleared of any contamination associated with the decommissioning operations. ABLE will submit the CQA report to the EA 5 days prior to re-flooding the dock for their approval allowing the re-flooding of the dock. This will enable the EA if they wish to inspect the basin and satisfy themselves that it is uncontaminated prior to being flooded.

Decommissioning Operations on Dry Land
Some marine structures may arrive on ships or barges and will be loaded onto dry land within the TERRC site for decommissioning there. Decommissioning procedures will vary slightly according to the requirements of individual ships, but in general will follow those set out in Section 8.3 here, and in Section 9.

Monitoring
During the period when vessels are being accepted into the dock prior to decommissioning activities, before the boom is opened across the dock entrance to allow a ship to enter, two water samples will be taken up and down stream of the dock entrance. These samples will be analysed according to a suite of determinands specified by the WML which will include for oil and grease, PCB and TBT content before the ships are received. The samples will set the background levels of contamination. Before the samples are taken a visual check of the water and report of weather conditions will be written in the site diary. After decommissioning works in the dry dock are completed and prior to flooding two further water samples will be taken up and down stream of the dock entrance and tested for oil and grease, PCB and TBT content. These samples will be taken again after the dock has been re-flooded and will be measured against the previous samples to determine levels of contamination. This sampling is in addition to the routine monthly sampling described in Section 8.2.10.

Upon request, the results of these samples will be made available to the EA. The dock will then be flooded as described in Section 13, further ships allowed to enter the basin, and the cycle of works repeated.

Treatment and Disposal of Wastes

Wastes arriving on ships to be repaired, refurbished or decommissioned range from asbestos in pipe insulation to toilet wastes, from marine growth on hulls to batteries and tank sludges. A method for treating each type of waste has been submitted to the EA, full and consistent compliance with each approved method of working would be enforced by the Site Manager as it is essential for ABLE to retain its Waste Management Licence.

37.9.2 In broad terms, all hazardous wastes will be removed from each ship, placed in steel containers and disposed off site or taken to the hazardous waste store. This store is within a secure location on the site. From there they will be dispatched by a registered carrier of waste to an appropriately licensed waste disposal site, offsite. No wastes of any kind will be disposed of on TERRC. Liquid wastes will be placed in suitable containers on site. In some cases the liquids will be treated on site prior to removal but, with one exception, all will be removed offsite by a registered carrier of waste and taken to an appropriately licensed treatment and or disposal facility offsite.

The single exception is bilge and ballast water. This is water in the hull of the ship or carried in tanks to improve the ship's sea-worthiness. Both categories of water will be sampled and tested to the satisfaction of the EA and only with prior approval will they then be discharged into the Seaton Channel. The EA will determine the criteria to ensure it will not adversely affect human health or the ecology of Tees Bay.

37.9.3 ABLE has a spillage and leakage emergency plan, approved by the EA, to be implemented in any emergency involving loss of wastes on land or in water.

37.10 Routine Use of the Dock Facility

There will be a routine for use of the dock as a dry dock facility. Ships will enter or be towed through the dock entrance into the dock and be moored inside the basin. Before any waste removal operations commence the dock entrance will be closed off with an oil boom, so that if there is a leakage or spillage of oil it will not enter the Channel. When the dock entrance has been sealed the water inside will be tested. If the analyses show that the dock water meets standards set by the EA, the dock will be pumped dry with the water discharging into the Seaton Channel at an approved flow rate. The ships within will settle on the solid dock floor, and will be made stable there.

37.10.2 With all the water removed, sediments and marine debris will be left. The sediment and marine debris will be collected. If of a standard acceptable to DEFRA, the sediments may be loaded onto ships and released at sea in compliance with a licence issued and regulated by DEFRA. If the sediments, after testing are shown to be contaminated, they will be disposed of at an appropriately licensed waste disposal site.

37.10.3 Work on the ships will be carried out as described, first a survey, then removal of the majority of wastes, then repairs, refurbishment or decommissioning. There may be around 13 ships in the dry dock at any one time.

37.10.4 It is expected that the facility could process around 230,000 tonnes of ships in any year. Of the 230,000 tonnes, most will be steel which will leave the site in ships or barges and be taken for recycling. Steel will go either to the Corus Works at Redcar or by ship to other facilities requiring scrap steel for recycling.

37.10.5 Any rainwater or other water accumulating in the dock while it is dry will drain to sump at basin floor level. The water will be tested and, if it meets standards set by the EA, it will be discharged into the Seaton Channel. If it fails to meet standards, it will be treated at a suitably licensed water treatment plant, retested and, if approved, discharged. If it is still found to be unacceptable, it will be further treated until it meets acceptable standards. With the dock thus thoroughly cleaned, sluice gates will be opened to allow Channel water to flood the basin. Once the water is to level the cofferdam will be opened, a further consignment of ships allowed to enter and the cycle of operations repeated.

Construction of the Cofferdam, Preparation of the Dock, Building Construction and Work on the Quays

The ES provides the following description of operational development within the dock.

12.1 Introduction
12.1.1 This section describes the process of construction of the cofferdam, erection of the gates, erection of the industrial buildings, building the rail line, work on the quays and relocation of the Metal Recycling Facility.

12.2 Construction of the Cofferdam
12.2.1 ABLE seeks permission to build a cofferdam. Alternative positions of the dam are set out in Appendix 1.1.

12.2.2 The physical footprint of this structure is set in the dock entrance and two of the options will be partly on Crown Commission land with whom ABLE has had discussions. Construction operations for the cofferdam would involve the following activities (noise levels are taken from BS5228, Part 1, 1997):
• Approximately 28,000 cubic metres of sediments and other alluvial deposits would have to be removed from the footprint of the dam. The equipment involved would be a back-hoe dredger, a grab or a suction dredger. The noisiest plant within this selection would operate at 110dB. This operation would take 2-4 weeks. Disposal of the sediments is subject to their sampling and testing. This has already been undertaken; the application to DEFRA for a licence to dispose of the dredgings at sea has been made (a licence has been issued for this disposal previously but expired due to the delays in starting the works).
• Sheet piling would generate sound power levels of 114dB and it would then be installed to form two parallel walls across the dock entrance. Short sections of sheet piling would cut across the dam wall at 90^{o} to form a dock entrance in the centre of the structure. This stage of the works would take 6-12 weeks.

• The two arms of the cofferdam would be backfilled with aggregate being brought in by lorries and end tipped off each side of the dock, backfilling towards the centre of the dock entrance or by ship. Lorries will have sound power levels of 110dB. Stone will then be distributed by a dozer (115dB). This will take 4-6 weeks. Water rising within the sheet piling corridor, as stone is tipped in, will be moved back into the channel. This is expected to create 104dB noise emissions. The centre access through the cofferdam will either be sealed by sheet piling within a stone bund requiring importation of tested, clean and approved stone using the same technique. As and when it is necessary to open access through the centre of the cofferdam a tracked excavator with dump trucks will excavate stone from that part of the bund and carry it into storage areas on either side of the cofferdam. A crane will remove the piling at 114dB. It will take around 2 weeks to open and 2 weeks to close the cofferdam. Because the stone will have very little fines and be tipped into water, dust emission will be minimal. Should further working of the infill generate dust, either a water bowser will be used to suppress emissions, or work will pause temporarily until weather conditions (wind strength and direction) become more favourable. There are minor differences between the options for the cofferdam construction.

12.3 Installation of Dock Gates

12.3.1 The dock can be used for either dry or tidal conditions indefinitely by virtue of the cofferdam. A central removable section allows ships access to the flooded dock. The section would be rebuilt, the dock dewatered, work commenced and completed on ships inside, the dock floor cleaned to the satisfaction of the EA and the dock reflooded. The central section in the cofferdam would then be removed; more ships allowed in and thus the cycle is repeated.

12.3.2 ABLE seeks permission in the consent to use a cofferdam for up to 5 years in the expectation that it will be economically feasible to replace it with dock gates within the period. However, if threshold feasibility is not achieved within 5 years, ABLE will apply for an amendment to the consent to extend this time limit. It is anticipated that decommissioning a full dock load (i.e. 12-15) of vessels of assorted sizes and types would normally take about 6 months, which would mean two cycles of opening and closing the cofferdam per year. If from the commencement of the development ABLE had been seeking to install dock gates, the construction of the cofferdam (though not with a central removable access) would still have been necessary to protect the gates while they were being mounted in position, and tested.

12.3.3 There are two ways by which the gates would be fabricated. The structures may be built elsewhere and be brought to TERRC on barges or towed. These would be as per normal shipping movements.

12.3.4 Alternatively, steel components and sections would be brought to TERRC, some by HGV, others by rail and/or ship. Construction would take place on the site as allowed by the 1997 and 2002 consents. This would be either on the level ground around the dock with the sections being taken down to the dock floor on trailers or in the dry dock. The access to the dry dock is via a ramp, which is at the north west end of the site, furthest away from the Channel. Finally, assembly would be completed on the dock floor in dry dock conditions. The dock would then be flooded allowing the gates to float vertically. They will then be manoeuvred into position and sunk into place by opening valves in the gates allowing the gates to sink into their final position. The dock will then be dewatered and the gates checked for their

security and for the efficiency of the seal. If they are approved the cofferdam will be removed and the gates will be commissioned into routine use. If the gates are not satisfactory the dock will be re-flooded, the gates floated off, the dock dewatered, alterations made to the gates or gateway and the process repeated to hang them.

12.3.5 Fabrication of the gates will take around nine months. Work on constructing components on land is not expected to involve noise levels likely to affect the SPA. Operations will be 500m from the SPA giving a distance attenuation of over 60.8dB. Therefore, the sound power level at source would have to be 105dB before it had any cumulative impact on the background noise levels at the SPA, south of TERRC. Work on the dock floor will have even higher attenuation values, 83dB. This would mean that noise emissions from operatives there would have to be over 127.5dB before impact on the SPA was noticeable. These sound power levels are unlikely to be exceeded, thus noise levels on the SPA will not exceed existing background levels.
12.3.6 The main planning application plan, Figure 1.1, shows two positions for the gates. One position may be used to impound the water the other position would relate to dry dock use.

12.4 Removal of the Cofferdam
12.4.1 When the cofferdam is to be removed the construction procedure would be reversed and the stone and steel would be recycled.

12.5 Preparation of the Dock for the first time it is used for Decommissioning
12.5.1 The sediments on the floor of the dock have been sampled and subjected to analyses required by the EA and an application for a licence for disposal at sea has been made but is not yet determined. If this is granted then they will be dredged in tidal conditions and transferred to a barge alongside for removal and disposal at sea under licence from DEFRA.

The sediments on the floor of the dock have been sampled and subjected to analyses required by the EA and an application for a licence for disposal at sea has been made but is not yet determined. If this is granted then they will be dredged in tidal conditions and transferred to a barge alongside for removal and disposal at sea under licence from DEFRA. The licence, if issued, will specify the location of the tipping area at sea. No such disposal will take place without first obtaining such a licence. If, however, they are found to becontaminated above acceptable levels, they will remain in their existing location (dry dock floor) prior to disposal at a suitably licensed waste disposal facility transported by a licensed carrier of wastes. The dry dock floor drainage system will deal with any contaminated run off from the sediments. However this is considered unlikely as CEFAS has confirmed the dock sediment quality sample results to be within acceptable limits for disposal to sea as they are similar to those found in the wider Tees River area. Waters draining from the sediments will be handled by the dock floor drainage system, stored in holding tanks and tested for contamination. If found to be compliant with the discharge consent issued by the Environment Agency they will be discharged into the Channel, and if not they will be tankered offsite by a licensed carrier of waste water to a water treatment facility. With the majority of the sediments thus cleared, the cofferdam can be constructed to close off the dock at low tide. No problem with discharge of water to the Channel is seen, provided there has been no pollution event while the water

has been impounded in the dock. It is only after the dock gates are closed that a discharge consent would be required to discharge the remaining water in the dock. Because of the impracticality of treating 610,200m3 of water, every effort would be made to ensure that no pollution whatsoever entered the dock prior to dewatering being completed. The discharge consents required by the site will be administered through the waste management license, which has been applied for but is not yet determined. No operations at TERRC, which involve discharge of water directly or indirectly into the Channel, may proceed until the necessary consents are in place.

12.5.2 Once the cofferdam has been constructed, samples of water from the basin will be taken, as required by the EA, and subjected to analyses required by the Agency. For this purpose ABLE will use a UKAS accredited laboratory. Under its regulating powers the Agency will confirm threshold limits for the pollutants it specifies (see Section 24) in the discharge consent it issues. If the water is of acceptable quality it will be discharged into the channel subject to any conditions set by the Agency. The volume of water to be discharged will be around 610,200m3.

12.5.3 Pumps will be used for dewatering the dock. They will produce noise emissions of 115dB and will be mounted on floating pontoons within the dock. Any remaining slurry and sediments will be loaded on the basin floor using the dozer (115dB) and front loading shovel (111dB) feeding dump trucks (105dB) and disposed of as above, depending on its degree of contamination. From drawings of its construction supplied by ABLE, the dock floor is known to be composed of a network of concrete beams with aggregate fill in the interposing spaces.
The aggregate will have been permeable when laid but the interstices are now filled with sediment, reducing this permeability significantly. This aggregate will be sampled and analysed to determine if it is contaminated or not, and any contaminated material will be excavated and removed to a suitably licensed waste disposal site. It will be replaced with clean aggregate. Any concentrations of marine debris will be collected and removed to an appropriately licensed waste disposal site. Only as much short term storage of such material will be undertaken as dictated by practical purposes. Odour from marine growth is considered in the Working Plan (Appendix 8.1) and in Section 23 of the EIS. All reasonable methods will be taken to remove coarse material to material to be disposed of at sea. Removal of sediments and cleaning of the dock floor is expected to take four weeks.

12.5.4 If however, analyses of the dock water are unacceptable to the EA for direct discharge into the channel, the dock gates will be closed and works will cease until such time as the water can be decontaminated. It is emphasised that every effort will be made to prevent such contamination occurring.

12.5.5 If the analyses of some or all of the sediments on the dock floor are judged by DEFRA not to be suitable for disposal at sea, they will be taken by a registered carrier to a waste disposal facility licensed to accept wastes of that type. The disposal of wastes will be subject to WAC procedures regardless of its eventual destination.

12.5.6 Routine dewatering and flooding of the dock is described in Section 13.

12.5.7 A list of all plant to be used in operations covered by this section is given in Appendix 8.2. This also assesses noise impact on the SPA on the south side of the Seaton Channel.

12.5.8 To the extent that it is practically possible, any marine debris or other organic detritus exposed with the sediments after the dock is dewatered will be collected and disposed with minimum storage time onsite of at an appropriately licensed waste disposal facility. Odour from such matter is considered in Section 23 and Appendix 8.1.

12.5.9 ABLE confirms that the vast majority of vessels received into the facility will be flat across 75% of the hull bottom. The decommissioning method employed will mean the removal of bow and stern sections first, leaving the hull flat across 100% of the bottom. For vessels of this kind no stabilisation is necessary. On the rare occasions when a vessel without a flat bottom is decommissioned, it can be stabilised either by the use of wooden chocks or by allowing it to rest under controlled conditions until it reaches its own level. Vessels will at all times be stabilised sufficiently to eliminate potential for harm to the workforce or the environment.

12.5.10 The present dock structure was built by Laing Offshore Ltd in 1970. The dock floor is shown on the construction drawings to comprise a lattice of concrete beams, the intervening spaces being infilled with ballast or crushed rock. This structure was strong enough to bear the weight of steel and concrete oil and gas rigs and will be suitable for ship decommissioning.

The sequence of events leading to assessment of dock floor conditions will be as follows. The existing sediment load in the dock comprises a layer 800mm thick on average across the basin. The cofferdam will be constructed but the central entrance will be open. A dredger will enter the dock and remove as much of the sediment as possible (Paragraph 12.5.1). Vessels to be decommissioned will enter the dock and be berthed there. The cofferdam entrance will be closed and the dock dewatered (Paragraph 12.5.2). Before the vessels are decommissioned as much residual sediment as possible will be removed (Paragraph 13.1.12). Upon completion of decommissioning all remaining sediments will be removed (Paragraph 13.2.2). Exposure of the complete dock floor for the first time will allow a survey of contamination to be carried out in respect of ground conditions in the dock basin. A site condition report will be prepared and submitted to the EA as part of a further Waste Management Licence Application together with any mitigation measures, the need for which is identified in the report.

12.5.11 The dock floor is permeable by virtue of the layer of aggregate infilling the spaces between the existing concrete beams which are load bearing and give the floor sufficient strength to support steel and concrete oil and gas rigs during their construction. Photographic evidence (see front cover) from the time the dock was used in dry conditions shows water on the dock floor in dry weather conditions. This indicates that there is a movement of groundwater upwards onto the dock floor. In fact the floor of the dock was excavated to this depth and no deeper as the leakage of groundwater would then have become excessive. Because the base of the dock is below the level of the Seaton Channel, the natural water table will be somewhat

higher than the level of the dock floor, so the drive of the watertable will mean that the flow of groundwater is upwards into the dock. This being the case, it is not expected that there will be significant downward movement of liquids in the dock through the floor into the groundwater. The superficial geological deposits in the area were found in the site investigation undertaken by Able UK in 1998 to be a series of clays in a thick sequence of low-permeability glacial till and these underlie the site to provide a low permeability seal below the dock floor. Had they not been there channel water would have surged upwards through the dock floor every time Laing Offshore Ltd closed the dock gates and pumped out the dock. This did not happen, hence Laing Offshore Ltd was able to use the dry dock for its rig fabrication work.

12.6 Construction of the Buildings

12.6.1 The building will be constructed as shown on the site layout plan, Figure 1.1. The process will follow traditional lines. Each site will be marked out and the existing crushed concrete/ballast layer will be removed where there is any change in levels required in order to obtain level platform for the floors. Little general earthmoving is required as the site is close to level now. Adjustments in height will be made to the underlying surface. Ballast and crushed concrete will be replaced to form a sub-base for the floor. Services will be laid to the buildings. Floor slabs will be laid using either offsite produced mixed concrete or from a concrete plant on site, which is already consented. With the floors and service yard slabs cast and set, the steel frame structures would be lifted and secured into position and the frameworks added to allow attachment of roof and wall panels. Noise levels from these works are calculated in Appendix 8.2. They relate to the effects of buildings D and E on the SPA. The other buildings A, B and C are more distant and their effects would be less. Construction of the buildings is expected to take 6-9 months and is not scheduled to be restricted to any part of the year.

12.6.2 Lighting around the buildings and their service yards will be provided by low-level directional lighting columns, similar to street lighting. While the lighting will be visible from some parts of the SPA it is not expected to increase illumination on the SPA measurably. Measurements of illumination from the existing lighting towers on the TERRC site indicated TERRC's attributable illumination of the SPA to be 1 to 2 lumens only. The lighting from around the buildings will be less powerful and generally further away from the SPA.

12.7 Construction of the Rail Line

12.7.1 The alignment of the proposed rail route is shown on Figure 1.1. The corridor of land affected will be prepared as indicated for building construction. It is not expected that any major re-levelling will be required. The work on the rail link is expected to take four months. Work on the most southerly section opposite Quay 1 would be undertaken during the months mid-April to mid-September. It is not expected that the railway construction works will have any significant noise or disturbance effects on the SPA. The railway line will be provided with low level directional lighting, which will not be a significant factor on the SPA.

12.8 Quayside Works

12.8.1 Quayside works are needed to raise levels to those specified by the EA for flood protection purposes. This is discussed more fully in Section 25. The proposed quayside height will be 5.0m AOD. No piling will be carried out at Quay 1 during the

months of November, December, January and February in any year except between the times of two hours after a low tide and two hours before the next low tide (unless the agreement of the LPA has first been obtained in writing to any variation to this restriction).

12.8.2 The geomorphology modelling and assessment is detailed in the Pethick report in Appendix 20.1 herein. It concludes (Appendix 20.1, section 6.1) that hard engineered shore defences are required along the shoreline between the east end of Quay 11 and the BE Power Station cooling water (CW) intake. Therefore sheet piling to protect the shoreline will be installed to a height of 5m AOD. One mooring bollard will be constructed within the footprint of the proposed construction, with operational access to it as shown on Drawing No. TC 02041A (Figure 3.2.1). There is an existing sheet piling training wall to protect the Power Station cooling water intake and, following discussions with British Energy, it is proposed to reinforce this existing feature. The Seal Hide will therefore remain in its existing location.

Construction works will commence in the dock entrance at the corner of Quays 9 and 10 and continue towards Quay 11. Concurrently steel piling will be undertaken along Quay 1 with works to bring the quay level to the top of the piling. No additional dredging will be required for Quay 1. From the new dock entrance, piling will extend eastwards towards Quay 11, eventually to finish adjacent to the Power Station cooling water intake. Existing sheet piling to the west shoreline of the intake will also be reinforced. The new sheet piling which forms the shoreline defence will be installed to a maximum height of 5m AOD. Any new sheet piling installed to reinforce the existing BE frontage sheet piling will be installed at a full tide height and to a maximum of 5m AOD. Mooring bollards will be installed. The details of the full construction works proposed are as shown on Drawing No. TC 02041 A (Figure 3.2.1). The observation hide (Seal Hide) will remain in its present position. The works on British Energy land are the subject of an agreement between ABLE and British Energy.

12.8.3 The total time estimated for piling will be about one year. Noise levels generated by piling have been calculated for the shoreline of the SPA opposite and are set out in Appendix 8.2. Distance attenuation from Quays 10 and 11 reduces piling noise received at the SPA to close to background noise levels there anyway. However, ABLE will monitor noise levels during the summer and assess the impact on summer birds on the SPA. Any sheet piling continued beyond October will be subject also to the conditions set out in paragraph 12.8.1. Works will also be undertaken to raise ground levels behind the sheet piles to form the working surface of Quays 10 and 11. These operations are not expected to generate more noise than piling hence will not be perceptible at the SPA.

12.8.4 The majority of the construction works will be contained within normal working hours, i.e. 7.00am to 6.00pm Monday to Fridays and 8.00am to 2.00pm on Saturdays. However there will be occasions when some of the works will be undertaken on a 7day x 24hr basis. Any works that may disturb the birds on the SPA between November and February inclusive will be subject also to the conditions set out in paragraph 12.8.1.

12.8.5 ABLE has identified deficiencies in the condition of the dock wall in the area of Quays 7 and 8. The ships currently in the dock will be moved away from these quays prior to dewatering, and repairs to this section will take place when the dock is dewatered for the first time with works largely being contained within the dock. Continual engineering monitoring will take place during dewatering. The barrier attenuation on noise emissions by virtue of works below surrounding ground level and distance from the SPA and Greenabella Marsh will mean that the works will have no significant noise impacts at either of these locations. Once the refurbishment works on the dock wall are complete, the condition of that section will be monitored by the Site Manager, on first a daily basis then a weekly basis. This monitoring will extend to all sides of the dock and will be carried out indefinitely so long as the dock is dry.

12.9 Relocation of the Metal Recycling Facility

12.9.1 It is necessary to seek permission to relocate the Metal Recycling Facility (MRF) from the south east corner of the site to the west side of the dock basin to make room for the wind tower manufacturing facilities. The MRF will take steel sections from decommissioning works and cut or shear them into smaller sections for outloading from TERRC Quays. The facility was granted planning consent in 2003, but although the land was prepared for its construction, no building works were undertaken.

12.9.2 Operation of the facility will involve dump trucks placing their loads close to the MRF. Steel sections will then be fed into the plant. Processed sections will then be stockpiled awaiting disposal (the majority by ship but some may also go by rail and road). Noise generated by the facility is discussed in Appendix 8.2, Paragraph 1.26.

12.10 Quays 6 and 7

12.10.1 There is an extension to the main dock as shown on Figure SP/0/04/12/80/D, which provides Quays 6 and 7. This extension currently exists but repairs and reconstruction works may be necessary. These will be undertaken as they become evident during renovatory excavation. As it has not been required recently it has been filled in with aggregate and this is its present status. ABLE proposes to remove the aggregate bringing the existing Quays 6 and 7 back into use again. No new excavation of natural material will be undertaken as part of the renovation of Quays 6 and 7. The aggregate thus removed will be tested for contamination as it has been in contact with dock water, and if it is shown to be free of contamination exceeding thresholds set by CLEA or the Dutch Intervention Standards, the aggregate will be marked as provided in the 1997 and 2002 planning consents. If the aggregate, or any part of it fails to meet the thresholds listed here, it will be taken by a registered carrier of waste to a waste disposal facility licensed to accept it. Further details of the proposed works at Quays 6 and 7 are contained in Appendix 1.1.

12.10.2 The lowest layer of aggregate is probably underlain by sediments similar to those found across the main dock basin. This layer will not be removed until operations to clean up the main dock floor are being undertaken (Section 12.5). It is not anticipated that removal of the aggregate will give rise to any significant environmental impact. Removal of the base layer of aggregate and underlying

sediment is covered by the environmental evaluation set out in Paragraph 12.5.3 and 13.2.2. The noise levels from this excavation on the SPA at Greenabella Marsh are calculated to be at most 44dB; this is below the background levels of 47.5dB, and so no increase in noise levels will be detectable. The excavation is therefore considered to have a neutral noise impact on the SPA.

12.11 General Site Management

12.11.1 Much of the site will be regularly subjected to vehicle movements. However, some parts may not be and in these areas it may be necessary to control the spread of noxious or invasive weeds.

12.11.2 Only certified herbicides and pesticides approved under the Control of Pesticides Regulations 1986 will be used. No pesticides are stored on the site. The only pesticide to be used is 'Glyphosate' and this will be applied by an operator certified under the Control of Pesticides Regulations 1986.

12.11.3 It is anticipated that any other chemicals will be used for site management purposes.

37.11 Existing Wildlife and Conservation

37.11.1 The TERRC site lies in the vicinity of several sites of international conservation importance, which together form part of the Teesmouth and Cleveland Coast Ramsar Site and SPA.

37.11.2 Six SSSIs are adjacent to, or nearby the site, including The Hartlepool Submerged Forest, Seaton Dunes and Common, Seal Sands, Tees and Hartlepool Foreshore and Wetlands, Cowpen Marsh and South Gare and Coatham Sands. The SSSIs in the Tees Estuary together are important feeding and roosting sites for wintering wildfowl. The birds move in regular patterns around the estuary utilising different sites at different stages of the tide.

37.11.3 There are five other sites recognised for their local ecological importance, of these Greenabella Marsh is recognised as being the most important in the context of this assessment.

37.11.4 Ecological habitats present on the site were Bare Ground, Ephemeral/Short Perennial Vegetation, Scattered Scrub, Neutral Grassland, Swamp, and Standing Water, with Buildings and boundary features including Fences, Walls and Earth Banks. Lime loving plants, found on the concrete rubble on the east-side of the basin, are often associated with derelict industrial sites where concrete waste is left undisturbed for a number of years and are not unique to the site.

37.11.5 The site is of limited wildlife interest, with the most important areas being the scattered scrub, neutral grassland and swamp areas on the margins of the site. These are not protected habitats although they may be suitable for breeding birds. For this reason any construction works that may alter potential breeding habitats will be done when possible outside the breeding season.

37.11.6 The site is of limited interest with respect to protected species. However, the legislation relating to Great Crested Newts, Common Lizards and nesting birds is noted as there may be a small chance of their occurrence in the area based on the existing records of protected species in the vicinity of the TERRC site.

37.11.7 The potential impacts on the ecology on the site as a result of the proposed activities are associated with physical disturbance, dust, noise disturbance, visual disturbance, and chemical and biological pollution. The assessment shows that without mitigation the impacts from all the above are neutral to minor/moderate. When these are related to the conservation status of the ecological features the assessment of the overall significance of the impacts is minor/moderate negative.

37.11.8 Whilst the site itself is not ecologically significant, given the sensitive nature of the surrounding area, every care needs to be taken to mitigate potentially harmful impacts that may arise from the site itself or in any combination with the existing industry in the area. The Conservation Management Plan)Appendix 14.2) tabulates several mitigation measures that will take place to reduce the impacts of this development. With these in place the significance of the impacts will be reduced to a neutral or minor negative residual impact.

APPENDIX C

Environmental Impacts (extracted from Environmental Statement and supplementary documentation)

Effects on Human Health on Site and in the Community

37.12.1 A full occupational health audit has been conducted with regard to the risks of exposure to the whole range of substance or chemicals which operatives on site could encounter. ABLE has submitted to the EA a working method plan regarding the handling of wastes. It is concluded that providing operations are consistently and fully in accordance with these documents, there will be no significant risk to the health of operatives on site. It is also concluded that with the same careful methods fully applied to the handling of potentially hazardous substances on site, there will be no significant risk to the health of residents in the wider community outside the site.

Impacts on Marine and Estuarine Life

37.13.1 This section evaluated the marine ecology of the Tees Bay and Estuary and the sensitivity of the fish, birds and other organisms present to potential impacts arising from the proposed TERRC activities.

37.13.2 A small (0.56 Ha) area of habitat loss of estuarine mud containing worms and shellfish within the SSSI will occur as a result of the dredging included in this proposal.

37.13.3 Dredging and associated indirect effects are the main potential impacts on the marine ecological resources. Redistribution of toxic contamination may occur as a result of dredging in areas not previously disturbed, however the geotechnical borehole results show that much of new “capital” dredging is in the glacial drift and till clay layers. Analysis of these layers by CEFAS has shown they are less contaminated than those sediments in the most recent layers – but even these most recent layers have been confirmed by CEFAS to be of similar analysis to the sediments found in the wider Tees river and estuary. Harmful organic chemical compounds (PAHs) and heavy metals may be amongst those contaminants bound to sediments that are re-suspended as a result of dredging. However, only certain PAHs were above benchmark levels and due to their soluble nature, and a reduction in concentration caused by oxidation their levels in dredged material will be lower than the levels found on Seal Sands and therefore of minor significance.
37.13.4 In terms of general ecology (omitting birds and seals), it is considered that the proposals would not lead to an adverse impact on the Sites having a European conservation designation nor therefore to affect the overall coherence of the internationally protected Natura 2000 network.

37.13.5 Mitigation recommendations are made to reduce impacts, such as carrying out activities at specified times of year and to monitor the project as it progresses so that the programme can be informed and fine-tuned as appropriate and which can also provide information for the local ecology management plan.

Effects on Waterbirds

37.14.1 It is recognised that the Teesmouth and Cleveland coast is of national and international importance for birds and as such the area has been conferred Special Protection Area (SPA) status for breeding birds, passage migrants and assemblages of waterfowl.

37.14.2 The TERRC docks site lies next to the Teesmouth and Cleveland coast SPA and due to their proximity, the Seal Sands and Greenabella Marsh sites, which hold important numbers of birds, are recognised as the most sensitive areas to potentially be affected by the development proposals.

37.14.3 The impacts that are recognised as being of potential concern include noise and visual disturbance (light and human) from the dock operations and the construction and disassembly of the cofferdam, the production of noxious odours (minor risk), pollution (including short-term chronic and long term accumulation of toxic substances in the bodies of fish, birds and animals) and the interaction of factors with other proposed developments in the vicinity of Seal Sands. To provide a clear assessment of the potential impacts, their magnitude and significance, the Guidelines for Ecological Impact Assessment developed by the Institute of Ecology and Environmental Management (IEEM, 2002) have been used.

37.14.4 An assessment of the impact on birds of habitat loss and change in habitat quality, without mitigation, shows that the change of use and cofferdam construction/disassembly proposals are likely to result in a minor negative impact. However because of the relatively low numbers of worms and other resources of food at the North Shore in the vicinity of the proposed Quay 11 there are low numbers of feeding birds there and its loss will have very limited significance to the bird population.

37.14.5 An assessment of the noise impacts without mitigation shows that the change of use proposals are not expected to result in a negative impact, while for the cofferdam construction/disassembly the impact is expected to be of a minor negative significance, but then only for short periods. Mitigation proposals limit the periods and duration of piling and dredging operations to create a neutral impact.

37.14.6 An assessment of the visual impacts without mitigation shows that the change of use and cofferdam construction/disassembly proposals among other works are expected to result in a minor negative impact, again only for short periods. Mitigation proposals limit the periods and duration of piling and dredging operations to create a neutral impact.

37.14.7 An assessment of the pollution impacts without mitigation shows that the development proposals are expected to result in a minor/moderate negative impact.

37.14.8 An assessment of impacts from odours created by the change of use and cofferdam construction/disassembly proposals among other works are expected to result in a neutral impact.

37.14.9 Currently the overall assessment of the proposals without mitigation results in a minor/moderate negative impact on the integrity of the SPA. There are a small number of, but nevertheless important, mitigation measures that will be implemented to reduce the impact of the proposals on the integrity of the SPA and SSSI. These mitigation measures include screening some of the activities and restricting access to the south eastern site boundary to reduce visual disturbance to Greenabella Marsh and Seal Sands SPA respectively. The creation and implementation of a conservation management plan, which includes operational prescriptions (e.g. timing of certain operations) has been developed to minimise the potential impact of certain operations associated with the proposals (see Conservation Management Plan, Appendix 14.2). The ABLE Environmental Manager will be present on the site during different phases of the development to monitor the impacts of noise on birds on Seal Sands and Greenabella Marsh.

37.14.11 With full implementation of the mitigation measures through the implementation and management of the conservation management plan, the residual impact of the proposals on the SPA is expected to be neutral/minor negative.

Effects on Seals

37.15.1 This section provides information on the seal colony of Seal Sands. Teesmouth is the only known estuary in Europe where Harbour seals have re-colonised as a direct result of environmental improvements (INCA, 2004).

37.15.2 The effects of impacts including noise, contaminants, and visual disturbance were investigated. Effects of noise on seals is not fully understood, however, animals are thought to be most vulnerable during the pupping season, where an adverse effect could result in a mother abandoning her pup. There are no guidelines on what levels of noise could result in this response and therefore a precautionary principle will apply to industrial activities. ABLE will continue to contribute to INCA who undertake monitoring of the impacts of industrial activities on the ecology of Teesmouth. Without prejudging the outcome of any monitoring programme it is possible that the results may assist in improving the overall management of the local ecology. Mitigation proposals limit the periods and duration of piling and dredging operations to create a neutral impact.

37.15.3 Seals are susceptible to contaminants in the marine environment. Reduced immunity or mortality could arise from severe toxic contamination.
However, due to the implementation of a strategy to avoid discharges of any toxic substances into the channel and test sediments before release at sea, the impacts on seals from contamination are identified as neutral.

37.15.4 There are no potential impacts resulting from visual disturbance on seal populations.

37.15.5 Recommendations have been made to ensure that improvements in environmental conditions are sustained in order to maintain a successful breeding colony.

Introduction of Alien Species and Pathogens

37.16.1 A Biosecurity Plan has been created to manage the risks associated with alien species and any micro-organisms possibly carrying disease. It is not possible to summarise the risks posed into a general statement and no attempt to do so has been made. Instead a solid framework has been established through the Biosecurity Plan to manage risk on a marine unit basis.

37.16.2 The Biosecurity Plan works on a precautionary principle and regards all alien organisms carrying a risk of harm as being waste (unless testing confirms otherwise) needing collection, containerisation and disposal of in landfill or through robust treatment processes.

37.16.3 The biosecurity of TERRC and its adjacent environment will be assured by a process of specific Alien Species Risk Assessments identifying target organisms of concern, generic deep water sanitisation processes and then waste containerisation and elimination at the facility.

37.16.4 The magnitude of the unmitigated impact is potentially HIGH and the sensitivity of the environmental receptors (as have been indicated elsewhere in the EIS) are HIGH and therefore the unmitigated impact is MAJOR. With this and other factors in mind ABLE has decided that it will not decommission ships in wet dock conditions and this is expected to reduce the impact to a level that should can be regarded as ALARP (As Low As Reasonably Practicable).

Water and Sediment Movement

The process of dredging the channel, dock, cofferdam area and quays will have an impact on the environment. Studies by DNV and Geomorphologist Prof. Pethick have been carried out to assess the magnitude of these changes.

37.17.2 The DNV study shows that the hydrodynamic characteristics and corresponding sediment transport processes are influenced to a small extent within the bounds of Seaton Channel. Outside Seaton Channel the hydrodynamics and sediment transportation regime are changed slightly. Once dredging to deepen the channel is complete, the rate at which sediments accumulate across Seal Sands will be reduced. Moreover, what will be deposited will have more silt and clay and will contain less sand than at present. Both the reduction in sand content and the reduction rate of deposition compared with present conditions, could be ecologically beneficial. However the impact is assessed as minor adverse but with mitigation is assessed neutral long term.

37.17.3 There are ongoing changes in the channel today which will continue into the future and are not influenced to any large extent by the dredging proposals. The present studies show that today the Seal Sands SPA is eroding in places by around 1m per annum. The dredging proposals are assessed to slow down, over the long term, this manifestation. This attenuation impact on the natural process is assessed as minor adverse.

Resuspension of Contaminated Sediments

The Tees estuary has had a long history of industrialisation and consequently sediments within the estuary have been contaminated with a range of organic and inorganic contaminants.

37.18.2 Of concern in the TERRC basin and Seaton Channel are the high levels of certain organic compounds known as PAHs which have been found in surface sediments within the dock and along the north of the Seaton Channel.

37.18.3 Dredging will result in the re-suspension of sediment contaminated with elevated levels of PAHs and contribute to the spreading of PAH contaminated sediments that have concentrations that exceed current guidelines. Due to a reduction in concentration of PAH, caused by oxidation, levels of PAHs in dredged material are likely to be lower than PAH levels found on Seal Sands. Possible settling of re-suspended sediments on Seal Sands will therefore have little or no impact on Seal Sands and it communities. The deeper levels of dredging will be into natural clays which exist below the river sediments. These are almost unaffected by manmade pollution and will derive particles of clay and silt in suspension far cleaner than those on the existing surface of Seal Sands.

37.18.4 In conclusion, the re-suspension of contaminated sediments will pose a short-term adverse impact on the local ecosystem but will not harm the integrity of the protected sites or species in the area. In the long term a neutral impact can be expected.

Airborne matter and odour

37.19.1 There is a potential for the activities on site to generate or release gases and dust which could be harmful to health, or have an unpleasant odour, be of nuisance value or be harmful to the neighbouring wildlife sites. A full audit has been carried out of all processes involved in construction, repair, refurbishment or decommissioning of the ships. It reveals that protective and mitigating techniques can be applied on site to remove risk to human health and to the environment on site. The measures will be fully applied so that emissions carried offsite will therefore be minimal and of no significant risk to persons or the environment outside the site.

Site drainage

37.20.1 Drainage water from the site will either be clean, for example from roofs, or potentially contaminated, i.e. from parts of the site dedicated to decommissioning oily sections of the ships, or potentially polluted by disease carrying organisms or invasive plants or animals. A drainage strategy has been designed which deal with all three classes of water separately. Clean water will pass through oil traps and then be discharged into the Channel. Water which might be polluted will be held, tested, and if sufficiently clean, also discharged into the Channel. If the water is not fit for discharge into the channel it will be tankered off site for disposal via a licensed water treatment works. Water from ballast tanks or loose inside the hulls, e.g. bilge water, will be tested, and treated where necessary to eliminate chemical pollution but also to eradicate any harmful organisms, tested again and then discharged into the

Channel. In total these drainage and treatment systems will ensure water leaving the site will harm neither persons or the ecology of Teesmouth.

Site Flooding

37.21.1 Parts of the east coast of England may be subject to future flooding by the sea and the areas of risk have been mapped by the EA. The EA has set a level of 5m Above Ordnance Datum, AOD (mean sea level) as being the limit of the kind of flooding which is likely to occur only once every 200 years. Some of the TERRC site is above this level, but much is not, therefore some precautions are needed to guard against harm by flooding. The quayside against the Seaton Channel will be raised to 5m AOD. The top of the cofferdam and the central removable section will all be constructed to more than 5m AOD, likewise the dock gates. This still leaves the possibility of tidal flooding entering the site from ditches which run up each side of the site. Vulnerable parts of the site would be allowed to flood in this situation with the exception of certain areas, which must be protected. These are the hazardous waste storage areas, and the section of the site dedicated for dirty decommissioning. If these areas were allowed to flood, contaminating materials could be swept across the site and be lost to neighbouring land. These sensitive areas will have their own flood protection walls to at least 5.0m height AOD, so that they remain as dry islands even in flood conditions.

37.21.2 The site would be evacuated if deemed necessary during flood risk periods for safety reasons. With all these precautions in place flooding is not considered likely to give rise to environmental harm.

Water Issuing from Contaminated Sediments

The operations to construct a dam across the entrance to the dock and to prepare the dock for use, will involve the dredging and removal of sediments. These have been shown by CEFAS to be clean enough for release at sea and that is where they will be taken, in compliance with a licence issued by DEFRA. During routine use of the dry dock, accessible sediments exposed after the dock is pumped dry will be disposed at sea subject to meeting DEFRA requirements. However, sediments trapped under hulls of ships and any other debris derived from decommissioning operations will be disposed of to a suitably licensed landfill before the dock is reflooded. Leachate will seep out of the sediments as they drain. The leachate will be drained to a holding tank where the water will be tested and analysed. If of a composition acceptable to the EA, the water will be discharged into the Seaton Channel. If the EA does not approve this, the water will be taken by tanker to an appropriately licensed water treatment plant. Whichever option is used, there will be no harm to the environment.

Noise and Vibration

37.23.1 There will be a wide range of plant and equipment operating on site. In some cases a single item of equipment will be operating but normally noise from more than one source will be evident. A full audit has been carried out on the effects of noise on staff and operatives on site. In some cases staff will require ear protectors, as is necessary on many construction and industrial sites. However, with

full use of personal protective equipment as required by the Health and Safety at Work Act 1974, no adverse consequences are expected.

37.23.2 Noise and vibration are not expected to be encountered at levels giving rise to concern at the nearest residential developments.

Traffic Effects

37.24.1 The planning consent issued by Teesside Development Corporation in 1997 had limits on road and sea traffic to and from the site. TERRC currently operates under this consent and in future road and sea traffic will continue to be within these consented limits. ABLE seeks to establish use of a railway on the site, linked with the existing rail line running along the north eastern boundary. Planning consent is requested for around three trains per day. Use of the rail connection is to receive redundant rolling stock for recycling and to assist in the import and export of general cargoes. The site already has planning consent for these functions. This will minimize use of HGVs on public roads.

Accidents

The activities associated with the construction and use of the Seaton Port TERRC facilities are not thought to present any unusual risks to the environment and will be subject to compliance with current HSE requirements. Compliance will be enforced either directly by the Site Manager or by the Facility Manager when the development (i.e. buildings) is occupied.

37.25.2 With any marine or industrial operation there is a risk of accident. The addition of ships to the marine structures already being decommissioned at TERRC is unlikely to significantly increase that risk. A large number of safety measures are undertaken prior to any ship departing for TERRC. Ships will only be allowed to arrive in the United Kingdom if the United Kingdom Coastguard is satisfied with the condition of the ship. Once in the Hartlepool Port limits, ships come under the control of the Port Authority, a well equipped and modern port which handles on average over five thousand ship arrivals annually. Operational accident risk is present with decommissioning and construction of the cofferdam, as with any industrial operation. ABLE is experienced at decommissioning marine structures and has been doing so since 1985, they have a skilled and experienced workforce along with tried and tested work practices and procedures.

Visual and Landscape Assessment

37.26.1 The landscape and visual assessment concluded that the new development will not significantly affect the visual character of the site and surrounding area, or the majority of visual receptors. This is due to the context of its location between the Huntsman Tioxide works, the Nuclear Power Station and other industrial uses along both sides of the Seaton-on-Tees channel, and the familiarity of receptors with views predominantly industrial in nature.

Cradle to Grave Assessment

37.27.1 The TERRC site has been operational since 1997 to repair, refurbish and decommission marine structures. To date, this has involved oil and gas exploration and production rigs and modules. In 2001, Able commissioned an assessment of the impacts these operations would have on the wildlife of Seal Sands. It concluded that there was no correlation between industrial activities on the TERRC site the numbers or distribution of birds on the SPA. As a result all operations permitted under the 1997 planning consent were then allowed to take place without further restriction.

37.27.2 A survey of the site has shown one area of historic ground contamination but this has been subsequently dealt with. All works that have been carried out on site have been compliant with consents and licences applying to the site.

37.27.3 It is concluded therefore that at the moment, the site is without any environmental problems and is not adversely affecting the environment.

37.27.4 Any operations which take place in the future will be regulated by Hartlepool Borough Council in some respects on the basis of information from its statutory advisors, e.g. English Nature, and also by the EA and DEFRA. All these regulators have powers to monitor activities on site and to withdraw permissions if they feel that such action would be appropriate.

There is no reason to believe that the TERRC site cannot complete its operating life span without harm to the environment. In practical terms, this means that the dock is regularly cleaned out, all waste is removed from the site and disposed of safely offsite, and in the case of any accidental spillages or leakages on site, all affected ground will be dug out, disposed of and replaced with clean material. The site can therefore be expected to end its life span in a clean condition. At this point, ABLE or its successor operator will produce a site condition report which will trace the condition of the site from now until that time.

37.27.5 What happens to the site if and when operations cease is speculative and would depend upon a new planning consent. If however the site is left unoccupied, the likelihood is that the Channel would no longer be dredged to the proposed depth. The dock might also be left open. From examination of analyses of the existing sediments, and by computer modelling, it is evident that sedimentation will occur such that layers will build up in the Channel and dock floor to existing depths over a period of 20-40 years. The source of these sediments is likely to be from upstream and downstream and may contain the contamination which exists there now. In any case the situation will be recreated which currently exists, hence a “no change” assessment is given.

Economic Effects

37.28.1 It is evident from the results of the 2001 census that Hartlepool suffers from economic and social deprivation. Unemployment levels are traditionally high by comparison with those elsewhere in the region, and the Country generally. Allied with this, and perhaps as a direct result, Hartlepool has a disproportionately low percentage of 20-35 year old persons in its population. This may be a reflection of

relatively poor career opportunities in the area, but the weakening of this generation places a community at significant disadvantage.

37.28.2 The operations at TERRC will in total provide over 749 full time jobs in what is expected to be growing international industries of future construction ship recycling and turbine fabrication. It has been contended that ship recycling may harm the image of Hartlepool and adversely affect the economic growth and tourism of the area. This is examined as far as possible but is believed to be no more than of neutral impact and possibly beneficial. The overall benefit of long term employment associated with a safe and efficient ship recycling, repair and refurbishment yard is believed to more that outweigh any disadvantages occurring from the development.

Interaction between the TERRC Proposals and Other Foreseeable Developments in the Area

37.29.1 Other developments proposed in the area have been assessed in relation to the environmental impacts likely to accrue from the ABLE proposals. The PD Ports Container Terminal Development (NGCT) involves dredging of the Tees Main River Channel and construction to the Redcar Offshore Wind Farm. The assessment found no harmful interaction with either to be likely, and specifically the interaction with the NGCT Terminal in combination with the proposal is complementary causing overall less impact.

37.30 Conclusions

37.30.1 If all the mitigating measures detailed in this EIS are fully, efficiently and consistently implemented, the proposals embodied in the planning application examined here can be carried out without significant risk of harm to human health or significant risk of adverse impact upon the environment. The beneficial effect of 749 jobs derived from this proposal is very considerable.

APPENDIX D

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE CONSERVATION (NATURAL HABITATS & C.) REGULATIONS, 1994	**APPENDIX D**

PART A: The Proposal

1. Type of permission: Full planning permission	**2. Application reference:** H/2007/0543 H/2007/0544 H/2007/0545	**3. National Grid reference:** NZ5226/NZ5227	**'P' Number(s):**
4. Map of Application site and Peat Permission reference(s) Map Attached – **Yes / No**	**5. Brief description of proposal:** PLANNING APPLICATION: H/2007/0543 Extend the current use of the site to include the construction, repair, refurbishment and decommissioning of all types of ships, vessels and other craft as described more comprehensively in the EIS. Operational development consisting of the construction of quays 1, 6, 10 and 11; refurbishment of quays 7, 8 and 9; construction of cofferdam; construction of new dock gates; installation of railway track; construction and operation of metal recycling facility; erection of industrial buildings for the manufacture of wind turbines; erection of warehouse buildings; construction of two holding tanks in connection with the drainage design; construction of sump in the dry dock basin; construction of temporary secondary clay bund in the dock basin; dredging works being carried out within the dock basin and above the low waterline and engineering works associated with the construction of the mooring bollard and sheet piling structure to protect the British Energy power station foreshore. **PLANNING APPLICATION: H/2007/0544** Construction of cofferdam at entrance to dock (option 1) **PLANNING APPLICATION: H/2007/0545** Construction of cofferdam at entrance to dock (option 2)		
6. European site name(s):	Teesmouth and Cleveland Coast SPA/Ramsar		

7. List of interest features:

SPA Features:

A. Supports populations of European importance of the following species, listed on Annex 1 of the EU Birds Directive**: Little Tern**, 37 pairs representing at least 1.5% of the breeding population in Great Britain; **Sandwich Tern**, 2,190 individuals representing at least 5.2% of the population in Great Britain on passage migration.

B. Supports populations of European importance of the following migratory species: **Ringed Plover**, 634 individuals on passage migration, representing at least 1.3% of the Europe/Northern Africa wintering population; **Knot**, 4,190 individuals representing at least 1.2% of the wintering Northeastern Canada/Greenland/Iceland & Northwestern Europe population; **Redshank**, 1,648 individuals representing at least 1.1% of the wintering Eastern Atlantic population.

C. Over winter, regularly supports 21,406 individual waterfowl including Sanderling, Lapwing, Shelduck Cormorant, Redshank & Knot.

PART B: Identification of effects being considered and relevant features affected			
Significant effect being considered (attribute affected)	**Affected qualifying feature(s)**	**Favourable condition target(s) for relevant feature(s) based on conservation objectives set for SPA/ Ramsar**	**Contribution of attribute(s) to site integrity (ecological structure and functioning of site)**
Habitat Loss by physical removal of intertidal sand and mudflat that would be of importance as feeding habitat for listed bird species.	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Intertidal mudflat provides most of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl.
Habitat Loss due to side-slope instability of Seaton Channel as a result of dredging	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Intertidal mudflat provides most of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl.
Habitat Loss through the development of a meander in the Seaton Channel as a result of dredging	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Intertidal mudflat provides most of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl.
Habitat loss as a result of changes to tidal propagation	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Intertidal mudflat provides most of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl.

Disturbance through noise, visual and odour factors could prevent bird species from feeding or cause them to make additional movements thus using up energy stores.	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species. Annex 1 bird species, in particular Sandwich Tern	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	The area around Seaton Channel makes an important contribution to the feeding habitat for regularly occurring migratory Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species. Annex 1 bird species, in particular Sandwich Tern bird species, wintering waterfowl and Annex 1 bird species
Smothering/siltation, which may have an adverse effect on invertebrate species fed on by wintering waterfowl and listed migratory species.	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Invertebrate species in the inter-tidal sediment are the main food resource for regularly occurring migratory bird species and wintering waterfowl
Nutrient enrichment may affect water quality, enhance the growth of Enteromorpha algae and hence have an adverse effect on invertebrate species fed on by wintering waterfowl and listed migratory species.	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Intertidal mudflat provides the bulk of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl
Fish mortality/disturbance may remove part of the food resource for passage Annex 1 species	Annex 1 bird species, in particular Sandwich Tern	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring Annex 1 species, under the Birds Directive, in particular: Sand & shingle; intertidal sandflat and mudflat; shallow coastal waters.	Annex 1 bird species occur in populations of European importance on passage migration.

Toxic contamination may affect bird species for which the SPA is listed by either direct impacts on fish or invertebrate prey species or bio-accumulation of contaminants through the food chain	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species. Annex 1 bird species, in particular Sandwich Tern	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh. Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring Annex 1 species, under the Birds Directive, in particular: Sand & shingle; intertidal sandflat and mudflat; shallow coastal waters.	Intertidal mudflat provides the bulk of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl. In addition certain fish species are a food resource for Annex 1 bird species.
Ballast Water/ Hull Fouling could have an adverse effect on SPA birds through the introduction of exotic and invasive species, which may adversely affect the invertebrate food source for listed bird species	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Invertebrate species in the inter-tidal sediment are the main food resource for regularly occurring migratory bird species and wintering waterfowl.

APPENDIX D

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE

CONSERVATION (NATURAL HABITATS & C.) (Continued)

PART C: Assessment				
Significant effect being considered (attribute affected)	**Adverse Effect of proposal alone on attribute and/or feature and in relation to conservation objective for the feature**	**Adverse Effect of proposal in combination with other plans or projects, on attribute and /or feature**	**Can adverse affects be avoided?**	**Adverse affect on integrity; long term, short term. Yes, no or uncertain?**
Habitat Loss by physical removal of intertidal sand and mudflat that might be of importance as feeding habitat for listed bird species.	The proposed dredging operations would result in the loss of 0.56 ha of intertidal habitat from a part of the Seal Sands SSSI located on the north bank of Seaton Channel. This habitat is used by birds for which the SPA is designated and supports mean bird numbers of: 1 Curlew, 1 Redshank and 3 Oystercatchers.	It is considered that there would be no in-combination effect that would exacerbate the degree of habitat loss directly attributable to dredging processes	Yes, through provision of replacement habitat by way of mitigation, details of which to be agreed with Hartlepool Borough Council and bound into a Section 106 Agreement. *(RefES ASection 20.6.2.1)*	No

Habitat Loss due to side-slope instability of Seaton Channel as a result of dredging	Slope stability deep failure mode analysis confirms that the dredging has no impact on the safety factors except in two cross-sections of existing slopes. In one of these cross-sections (North B-B) there is a high safety factor both before and after dredging (3.55 & 3.15 respectively). In the other cross-section (West D-D) the safety factor would be reduced from 1.25 to 1.20 after dredging but before mitigation.	THe potential for the Northern Gateway Container Terminal proposal and the Conoco Phillips LNG terminal & CHP Plant proposal to have an in-combination effect was considered but ruled out because dredging for both of these projects would be outside of the Seaton Channel .	Mitigation would involve the creation of additional sub-tidal terracing which would establish a safety factor of 1.25, equivalent to that which currently exists in the relevant sections of the channel. *(RefES Appendix 16.1f)*	No
Habitat Loss through the development of a meander in the Seaton Channel as a result of dredging	A meander is predicted to develop in the Seaton Channel, under existing conditions, which may over time reduce the inter-tidal area of the SPA on the southern shore of Seaton Channel. The proposed dredging, which will result in a greater cross-sectional area of the channel, will retard the formation of any such meander. *(Ref ES Appendix 20.1, section 5.2.3)*. However this is not considered to have an adverse effect on the integrity of the SPA.	THe potential for the Northern Gateway Container Terminal proposal and the Conoco Phillips LNG terminal & CHP Plant proposal to have an in-combination effect was considered but ruled out because dredging for both of these projects would be outside of the Seaton Channel	No mitigation is required	No

Habitat loss as a result of changes in tidal propagation	The increase in tidal propagation would result in an increase in tidal prism of 1mm. This in turn would result in the loss of at total of 13m2 of inter-tidal habitat from the southern shore of the SPA. There would be a projected loss of 8m2 of inter-tidal habitat from the north shore (which has SSSI status)*(Ref: ES Section 20.6.37)* A loss of habitat of this size would be insignificant and hence its effects on the integrity of the SPA would be regarded as being de minimis.	The Northern Gateway Container Terminal (NGCT) proposal was considered in terms of potential in-combination effects. However the NGCT Environmental Statement concludes (Section 28.5.3, point 17), with respect to effects of the proposed channel deepening for the NGCT development on Seaton Channel, that there would be "no changes to tidal or wave conditions within the channel" Similarly the LNG terminal/CHP plant is assessed as having a negligible effect on the hydrodynamic regime (Sections 13.10.1 & 13.10.2)	No mitigation is required as the effect is regarded as de minimis	No

Disturbance through noise, visual and odour factors could prevent bird species from feeding or cause them to make additional movements thus using up energy stores.	The background noise levels on the SPA have been recorded as 47.5db. A variety of processes associated with this proposal have the potential to raise noise levels above the background level. The loudest of these will be piling operations associated with the construction of the quays, which will create noise levels of up to 64.1db. There may be some visual disturbance due to people appearing above the skyline in connection with work undertaken on the cofferdam, though the impact is considered to be minor given the distances from the SPA. The ES contends that as waterfowl often frequent a variety of areas that emit natural odours e.g. decaying seaweed along the tide line, birds are not likely to be affected by odours from low concentrations of gases such as Hydrogen sulphide. The overall significance of this impact on birds is therefore considered to be neutral.	For short periods when dredging and piling are undertaken in the same location (1 week out of 12) the combined activities could reach a noise level of 67db Pressure discharge events from the existing operations of the Hartlepool Power Station cause short duration noise events on the SPA. However this is something that the existing bird populations would appear to have habituated to. Combined operational noise between TERRC and the proposed LNG terminal/CHP plant has been assessed as having no additive effect. There is a reasonable expectation that construction noise associated with both TERRC and LNG terminal/CHP plant will mitigated through suspension of working activity around low tide during vulnerable winter months. As such an adverse in-combination effect would not be expected.	It is confirmed within the mitigation sections of the ES that the applicant proposes not to undertake any dredging, or piling, including piling required for cofferdam opening or closing, within the period 2 hours either side of low tide during the period Nov-Feb so as to minimise disturbance to birds during the critical winter period. *(Ref: Supplementary Document 2; Section 4.7)*	No

Smothering/siltation, which may have an adverse effect on invertebrate species fed on by wintering waterfowl and listed migratory species.	Redistribution of sediments caused by dredging could result in deposition of additional material on the SPA. This in turn could cause increased mortality or reduced recruitment of invertebrate species, which are important as a food source for SPA birds. In practice, it has been estimated that a little over 2mm of additional sediment will be deposited on the SPA in the first year. Very few species of invertebrate will not be able to keep up with this additional accretion. In the longer term, ie after a maximum of 3 years, the dredging operations will result in a slightly reduced accretion rate on the SPA. Given the predicted rise in sea levels this reduced rate of accretion might result in a reduction in inter-tidal feeding habitat.	The Northern Gateway Container Terminal proposal and the LNG & CHP Plant proposal will both involve dredging of parts of the Tees EstuaryThe NGCT Environmental Statement states that "the deepening of Seaton Channel will result in deposition of approximately a third of the increase of supply of fine sediment entering Seaton Channel resulting from the proposed NGCT deepening. It is concluded therefore that the two schemes in combination would have a lower effect on Seal Sands..." (Sections 28.5.3, points 25 & 26) With the LNG terminal/CHP plant proposal the effects of smothering have been assessed as minimal in comparison to background levels occurring (Section 14.7.1)	An appropriate sediment feeding regime will be instituted if ongoing monitoring shows that this is necessary. *(Ref Supplementary Document 2; Section 6.3)* Avoid capital dredging during critical spawning period of February and March	No
Nutrient enrichment may affect water quality and hence have an adverse effect on invertebrate species fed on by wintering waterfowl and listed migratory species.	The proposed increase in nutrient load to the Seaton Channel arising from the increased number of employees on the site would be 0.03% for nitrates and 0.08% for phosphates.	As the levels of nutrient enrichment were negligible there were considered to be no in-combination effects.	The increase in nutrient levels would be undetectable therefore no adverse effects are anticipated *(Ref:)*	No

Fish mortality/disturbance may remove part of the food source for passage Annex 1 species	It has been estimated that the closing of the dock would cause the mortality of 2533 fish per annum. A high proportion of these, c80%, would be of species eaten by Sandwich Terns. The removal of sediments during dredging might adversely affect sand eels, a species of importance for sandwich terns. Disturbance might cause fish to move to other parts of the estuary, but these would still be available to Sandwich Terns so this would not be a negative effect on the overall integrity of the SPA.	The Hartlepool Power Station intake causes a mortality of 160,618 fish per month. The current proposal would only increase the annual fish mortality in Seaton Channel by 0.0013%. The NCGT & LNG/CHP Plant proposals were not considered to have an adverse effect on fish mortality hence were ruled out in terms of in-combination effects.	The figure of 2533 fish killed per annum is a worst-case scenario. In practice, with the falling tide and noise of dock operations, it is likely that most of the fish will have left the dock prior to closure. The key habitat for sand eels is shallower sand bars, whereas the main dredge areas are well below LAT. Avoid capital dredging during critical spawning period of February and March	Any adverse effect is regarded as being de-minimus.

Toxic contamination may affect bird species for which the SPA is listed by either direct impacts on fish or invertebrate prey species, or bio-accumulation of contaminants through the food chain	De-watering and re-flooding of the dock area may cause contaminated sediments to spread into Seaton Channel and from there on to the SPA. Dredging of Seaton Channel may cause resuspension of contaminants, which may then be deposited on the SPA. Of potential contaminants in Seaton Channel, all but four PAHs are well below recommended risk levels. Of these four PAHs, all except Anthracene are below concentrations that already exist on the SPA (Ref: ES Section 21.4.44)	Dredging associated with the NGCT & LNG/CHP Plant proposals is considered to remove contamination from the Tees Estuary and hence the SPA. Two nearby sites have been identified as possible sources of additional waterborne contamination in the vicinity of the TERRC site. These are the Cowpen Bewley Landfill site at Billingham and Huntsman Tioxide. However discharge from the Cowpen Bewley Landfill site is unlikely to cause an in-combination effect because toxic contamination from the TERRC site has been identified as short-term (during dredging) and only PAHs are above benchmark levels. PAHs are not listed in the Huntsman Tioxide discharge. Therefore no in-combination effect has been identified. *(* *)*	A maximum of 8% of dredged material would be lost and available for re-sedimentation The development proposals will actually be removing a substantial proportion of PAH contamination from Seaton Channel. (Ref: ES, section 21.4.33) Furthermore, it is likely that after the capital dredge, cleaner sediments will come in from the sea and deposit on the SPA causing some reduction of contamination in the sediment. Work within the dock will be within a controlled environment with inspections taking place to detect any dock floor contamination. Should contamination be found the material would be removed to a required depth and taken to a suitably licensed waste disposal facility and the area re-tested for contamination. *(Ref Supplementary Document 1; Section 7)*	The net increase in contaminants, from the passage of finer particles disturbed from Seaton Channel and ending up on Seal Sands, is negligible and significantly below a 0.1% net increase over existing concentrations within sediments. Therefore no adverse impact is anticipated.
Ballast Water/ Hull Fouling could have an adverse effect on SPA birds through the introduction of exotic and invasive species, which may adversely affect the invertebrate food source for listed bird species	The introduction of exotic and invasive species could have an adverse effect on the existing invertebrate fauna by predation or competition. This in turn could have an effect on the SPA birds through reducing their food supply	No in-combination effects are anticipated as there are no other proposals for de-commissioning ships or other marine structures.	A bio-security plan will be implemented to ensure that the risk of bio-pollution from alien species is minimised. *(Ref TERRC Compliance Plan, section 22)*	No, provided that the bio-security plan is implemented.

APPENDIX D

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE

CONSERVATION (NATURAL HABITATS & C.) (Continued)

PART D: Council's Conclusion

CAN IT BE ASCERTAINED THAT THE PLAN OR PROJECT WILL NOT ADVERSELY AFFECT THE INTEGRITY OF THE EUROPEAN SITE(S)? YES/NO YES

(Please provide explanation for answer given and attach any relevant supporting information)

All potential effects, identified following advice from statutory consultees, which might result from the proposal and which might have an adverse effect on the SPA have been considered in Parts B & C of this assessment. Although certain of the effects being considered might have the potential to have an adverse effect prior to mitigation, the EIA and supplementary documentation for this application outline a series of mitigation strategies which will be implemented as appropriate to avoid any adverse effects.

Whilst each of these potential effects has been assessed in isolation as not causing an adverse effect to the integrity of the SPA, there is a need to consider how they might combine to affect the SPA. Certain of these potential effects have been assessed as being either neutral or de minimis and do not require mitigation. These are: visual disturbance; disturbance from odours; nutrient enrichment and fish disturbance and mortality. It is considered that they will not cause an adverse effect even in combination with the other factors.

Other factors: habitat loss; noise disturbance; toxic contamination and ballast water/hull fouling have been assessed as potentially having an adverse effect prior to mitigation. Mitigation has been designed to reduce the effects of each of these so that their impact is neutral and consequently this mitigation will need to be agreed as a robust condition.

Of the above factors, habitat loss has been identified as potentially occurring as a result of four processes which could act in-combination: direct removal; side-slope instability; meander formation and changes to tidal propagation. However there is also the likelihood that redistribution of sediments caused by dredging may result in a reduced rate of accretion on Seal Sands in the medium to long term. This in turn may result in a reduction in the inter-tidal area over time.

Of the above processes meander formation is considered to result in redistribution rather than loss of habitat and hence would not have any impact in functional terms. Side-slope instability is addressed by mitigation, which will ensure a safety factor at least equivalent to that which already exists in the Channel. The reduced rate of accretion caused by dredging could be addressed by a suitable form of sediment augmentation should this be shown to be necessary. The residual effects on habitat loss are therefore the direct removal of 0.56ha of non-SPA SSSI inter-tidal habitat and the loss of 13m2 of SPA intertidal habitat and of 8m2 of SSSI inter-tidal habitat as a result of changes to tidal propagation. As the former is outside the SPA area, then the provision of replacement habitat is acceptable as mitigation, whilst the latter is so small as to be undetectable.

It is therefore concluded that subject to mitigation being enforced through suitable conditions and a planning agreement the project would not have an adverse effect on the SPA.

APPENDIX D

Name of Assessing Officer: Ian Bond	**Name of Supervising Officer:** Roy Merrett
Job Title: Ecologist	**Job Title:** Principal Planning Officer
Signed:	**Signed:**
Date:	**Date:**

APPENDIX D

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE

CONSERVATION (NATURAL HABITATS & C.) (Continued)

PART E: Consultation with English Nature on Part D	
English Nature comment on conclusion:	
Name of EN Officer:	**Job Title:**
Signed:	**Date:**

APPENDIX E

Appropriate Assessment – Supporting notes

Habitat Loss

Habitat loss as a result of this proposal has been identified as potentially occurring due to four effects: direct removal; side-slope instability of the Channel; loss through the development of a meander in the channel and as a result of an increase in tidal propagation.

A total of 0.56 ha of foreshore, adjacent to Quay 11, will be removed as a direct result of this proposal. This removal needs to occur to allow for the construction of the berthing facilities at Quay 11. In addition geomorphological modelling has shown that the intertidal area between Quay 11 and the Power Station cooling water intake is eroding. With the dock gate closed the crest of the meander moves towards the cooling water intake and as such the sand and silt produced from this increased shore erosion could adversely affect the cooling water intake and hence additional piling will need to be undertaken in this area to protect the cooling water intake. ().

The area of inter-tidal habitat to be lost is part of the Seal Sands SSSI, rather than part of the SPA. Nevertheless it is used by birds, for which the SPA is designated. A recent study of bird numbers has shown that it has a mean bird count of 1 Redshank, 1 Curlew and 3 Oystercatchers. Natural England has suggested that this density of birds is probably, broadly typical of other areas of the SSSI. As mitigation for this loss the applicant has undertaken to provide compensatory habitat to the satisfaction of Hartlepool Borough Council and for this to be bound into a Section 106 Agreement with the Council. (Ref: ES section 20.6.2.1). Therefore there will be no net loss of habitat in the medium to long term.

The potential for habitat loss as a result of side-slope instability of the Channel was also investigated. (). Borehole data as presented in the ES, has been obtained to determine the composition of the substrates of Seaton Channel. Surface slope analysis has concluded that sub-tidal slopes will be stable at 1 in 3.5 in the glacial drift and till, whereas in the alluvial deposits they will be stable at a slope of 1 in 5 on the north of the channel and 1 in 8 on the south of the channel. Additionally slope-stability deep failure mode analysis has confirmed that the dredging will have no effect on safety factors of the slopes except in two cross-sections. In one of these, North B-B, whilst the safety factor is reduced slightly as a result of dredging (3.55 to 3.15), this still represents a high safety factor after dredging. In the second cross-section, West D-D, the safety factor is reduced from 1.25 to 1.20 after dredging but before mitigation. Mitigation would consist of a 5 metre terrace being incorporated into the dredging profile at the west of the holding basin.

In order to incorporate mitigation to maintain slope stabilities at an acceptable level it has been necessary to narrow the proposed dredge width of the channel from 100m to 85m and to incorporate some sub-tidal terracing. As a

corollary to this, it has been necessary to deepen the depth of the dredge to –9.5m LAT (Lowest Astronomical Tide) in order to avoid an increase in velocities and shear stresses. The implementation of this mitigation means that the slopes will be stable after dredging and hence there will be no loss of inter-tidal habitat from the SPA.

A study of the geomorphology of the Seaton Channel has been undertaken by Professor J Pethick, which included modelling of the predicted development of the channel. (Ref: ES Appendix 20.1)) The study identifies the current presence of a meander, which will over time alter the inter-tidal area of the SPA on the southern shore of the Channel. There is the possibility that this may result in the reduction of this area. However this meander is predicted to continue development even under existing conditions. The proposed dredging would, in fact, tend to retard the development rate of this meander rather than exacerbate it.

Changes in tidal propagation can result in changes to the heights of tides, which can then result in the loss of exposure of inter-tidal areas and consequent loss of bird-feeding areas. In this instance, dredging associated with this proposal has been shown by hydrodynamic modelling to result in a water level rise of 1mm. (ES Section 20.6.3.7) Given the slope of 1:8 on the SPA shoreline, this has been calculated to result in a loss of 13m2, or 0.0013ha of inter-tidal habitat on the SPA. The SPA has a total area of 1247.31ha and its citation is measured in units of a minimum of 100m2. Consequently the loss of 13m2 is regarded as being *de minimis*.

In-combination effects

The Northern Gateway Container Terminal (NGCT) and LNG terminal/CHP Plant proposals were considered in terms of potential in-combination effects. However the NGCT Environmental Statement concludes (Section 28.5.3, point 17), with respect to effects of the proposed channel deepening for the NGCT development on Seaton Channel, that there would be “no changes to tidal or wave conditions within the channel.” (Section 28.5.3). Similarly the LNG terminal/CHP plant is assessed as having a negligible effect on the hydrodynamic regime (Sections 13.10.1 & 13.10.2).

It is recognised that the proposed alterations to the Seaton Channel profile have been modelled in the NGCT Environmental Statement on the basis of the previous proposal of 100 metres in width by -9 metres LAT in depth. The proposed profile has now been modified to 85 metres in width and -9.5 metres LAT in depth. The Able UK environmental statement confirms that both of the aforementioned profile scenarios have been modelled and that the difference between the two scenarios in terms of projected water velocity and shear stress levels is minimal. The accompanying DNV technical report confirms that the narrowing and deepening of the channel has little overall impact.
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The impact of the proposed dredging by Conoco Philips of the turning circle area was assessed in-combination as part of the proposed dredge area for

the Northern Gateway project. The only other dredge area proposed by Conoco Philips is the inset dock. This is separated from the Seaton Channel on its western side by an extended spit which would act as a barrier to sediment movement on Seal Sands ensuring that there would be no impact on slope stability as a result of in-combination dredging. In terms of tidal propagation and meander formation the volume of additional water caused by the dredging of the inset dock area would be minimal in the context of overall flows in the Tees estuary area and as such the additional impact would be negligible.

Therefore it is considered that there are no in-combination effects.

Conclusion

It is concluded that intertidal habitat losses will only occur as a result of increased tidal propagation on the SPA and the direct removal of an area of SSSI. The areas that will be lost as a result of tidal propagation, (13m2) of SPA and (8m2) of SSSI are considered to be so small as to be de minimis. Therefore habitat loss as a result of this proposal will be confined to 0.56ha of SSSI habitat. This will be mitigated for by the provision of compensatory habitat through a Section 106 Agreement.

Fish Disturbance / Mortality

Impact- alone

Fish disturbance would potentially be an issue were it to have a significant adverse effect on the fish stocks available for bird species for which the SPA is designated. However as fish are highly mobile it is to be expected that they would simply move to other parts of the estuary and hence still be available as a food source for birds. Therefore fish disturbance is not anticipated to have a significant adverse effect on the SPA.

Fish mortality is potentially a significant issue as certain bird species for which the SPA is designated feed on fish. Of particular note in this respect are Sandwich Terns *Sterna sandvicensis* and Little Terns *Sterna albifrons*, which feed principally on Sand Eels *Ammodytes tobianus* and Sprat, *Sprattus sprattus*.

In terms of fish mortality, the closure of and de-watering of the dock has the potential to cause the entrapment and consequent mortality of fish. The potential effect of this has been calculated in the ES by extrapolating data from the number of fish caught by the power station screens per unit volume of water to the volume of water that would be trapped by dock closure and hence the number of fish that might reasonably be expected to be trapped.

The Hartlepool Power Station abstracts an average of 77,365,500 cubic metres of water from Seaton Channel each month. An average of 160,618 fish are caught in this process. By comparison 610,200 cubic metres of water is estimated to remain in the TERRC dock on a Spring Low Tide as it is closed. By extrapolating from the Power Station figures, it is likely that 1266 fish would be trapped in the dock. If the dock were to be closed twice a year, then 2533 fish would be likely to be trapped. This figure of 2533 fish would equate to 0.13% of the number of fish caught each year in the Power Station cooling water intake screens which is not considered to impact on fish stocks in the Seaton Channel.

The ES further states that this is likely to be a worst-case scenario. The falling tide level and the flow of water out of the dock combined with the noise of dock closure processes would be likely to cause the majority of fish to leave the dock prior to its closure. Furthermore, not all of the 2533 fish would be of species that would typically be eaten by bird species for which the SPA is designated.

An additional potential threat to sand eels might arise as a result of the physical removal of sediments during dredging of Seaton Channel and the dock area. The key habitat for sand eels is shallower sand bars, whereas the main dredge areas in Seaton Channel and the Dock are well below LAT. In addition the extent of initial draining and dredging of the dock is considered to be unique given that after this event the dock would be exposed to the open sea for relatively short periods and as such the rate of sediment accumulation

would be much less than under present conditions. Consequently the ES concludes that the mortality rate for sand eels is likely to be low.

As is the case with fish disturbance, fish mortality needs to be seen in the context of its potential effect on bird species for which the SPA is designated. Fish-eating birds only remove a proportion of the fish stocks available to them and Sandwich Terns in particular will only be feeding, on passage, for limited periods each year. Consequently only a very small proportion of fish that would suffer mortality as a result of this project might otherwise have been eaten by terns and hence, there is likely to be no significant effect due to fish mortality.

Impact in-combination

The impact of the project on fish mortality should be considered in combination with the mortality caused by the screen on the power station intake. As has already been pointed out, fish mortality due to closure and de-watering of the docks is likely to add, in the worst-case scenario, an additional 0.13% to the annual mortality figures.

The Northern Gateway Container Terminal & LNG/CHP Plant proposals were not considered to have an adverse effect on fish mortality hence were ruled out in terms of in-combination effects.

Conclusion

The effects of fish mortality and disturbance on the bird species for which the SPA is designated are considered to be de minimis.

Nutrient enrichment

The effects of effluent generated by the large numbers of workers associated with this project were assessed in terms of nutrient enrichment in the tidal waters. Nutrient enrichment could potentially affect invertebrate species fed on by SPA bird populations. This could happen directly through changes in the benthic community towards species that are more tolerant of higher levels of nutrients, or indirectly by causing increased growth of Enteromorpha algae.

It has been calculated that the effluent arising as a result of the staffing associated with this proposal would generate in the region of 550kg of Nitrate and 153kg of Phosphate per annum. This is compared to the current nutrient load in Seaton Channel of an estimated 920,000kg Nitrate and 184,000kg Phosphate. There would therefore be an increase in nutrient load of 0.06% for Nitrates and 0.08% for phosphates. This level of increase would be undetectable and hence any effect on the SPA is regarded as negligible.

As the levels of nutrient enrichment were negligible then there was no potential for in-combination effects.

Ballast Water/ Hull Fouling

There is the possibility that the SPA could be affected through the introduction of exotic, invasive plant or animal species that are brought into the Tees Estuary with vessels and marine structures associated with this proposal. These could potentially have a negative effect, for example by predating or competing with invertebrate species which SPA birds feed on or by altering the habitat.

In order to combat any risk of exotic, invasive species Able UK have instituted a bio-security plan. Details of this are set out in Section 22 of the TERRC Compliance Plan.

The bio-security plan is based on a risk assessment of the marine unit due for decommissioning whilst it is at its port of departure. This will include: a statement of the unit's history and global movements; bio-geographical matching with Teesside; hull fouling sampling and superstructure inspection and onboard trapping of animals such as invertebrates and mammals.

Risk assessments will be completed and protocols agreed with the Environment Agency before the marine unit leaves port for the TERRC facility.

Marine growth would be tested for micro-organisms in order to help determine the re-use or disposal requirements of the material. It would be containerised and held temporarily at TERRC within a bulk material storage facility prior to being recycled or disposed of to landfill as appropriate.

Prior to the decommissioning of the vessels in the dock the ballast and bilge water will be tested for the presence of biological contamination and treated in accordance with the bio-security plan.

In-combination
No in-combination effects are anticipated as there are no other proposals for de-commissioning ships or other marine structures. It would be reasonable to expect further shipping activity at Teesport if the gateway terminal project comes to fruition however given that it is an existing port location, the volume of traffic there, distance from TERRC and potential to control Biosecurity issues at all sites a significant detrimental impact on the SPA would not be expected.

Conclusion

The implementation of the bio-security plan, as set out in the TERRC Compliance Plan, will prevent any adverse effect on the SPA caused by exotic, invasive species.

Smothering / Siltation

The potential for redistribution of sediments resulting from dredging associated with this project have been assessed with regards to possible effects on benthic invertebrates and fish. Benthic invertebrates which can be sessile, i.e. those that live either on or in the sediment layer, could potentially be at risk from being smothered and killed by excess sedimentation. This is particularly the case for their eggs, which are sessile. Fish are also vulnerable to smothering in the egg stage. Any diminuation of benthic invertebrates or fish numbers could have the effect of decreasing the food supply for SPA birds.

The dredging proposals would involve a capital dredge of 1,100,000 cubic metres, which would only occur in the first year. Subsequently there would be an annual maintenance dredge of 44,100 cubic metres. The DNV report () has assessed the current accretion rate of sediment as 3.5mm pa. The capital dredge would result in the deposition of an additional 2.1mm of sediment in Year 1. The maintenance dredge would result in the accretion of an additional 0.04mm of sediment annually. However the dredged channel would act as a sediment trap, thus reducing the annual accretion rate to 2.08mm without the maintenance dredge, or 2.12mm including the annual maintenance dredge.

It is considered that very few benthic invertebrates will not be able to adapt to the additional 2.1mm of sediment, which will occur in the first year of dredging. Of more concern is the spawn of benthic invertebrates and fish, which may not be able to adapt to this as they may not be able to move. The sensitive period for spawning, for both benthic invertebrates and fish is Ferbruary/March. Consequently Able UK have committed not to undertake the capital dredge or maintenance dredge during this period.

As can be calculated from the figures for sediment deposition in the above paragraphs, the amount of sediment deposited on the SPA will actually be reduced from Year 3, relative to that which would have accreted had no dredging occurred. ().

Given that an annual rise in sea-level of up to 6mm per annum is predicted, there is the possibility that the accretion rate on the SPA will not keep pace with this sea level change and that areas of the SPA will be inundated (effectively LAT contour raises by 7.38mm per annum (89m^2 SPA and 56m^2 SSSI habitat loss)) and so become unavailable to birds. The reduced accretion rate described above assumes that the dredged material is released at sea. As an alternative to this, Able UK would agree to use some of dredged material from the maintenance dredge to replenish the sediment on the SPA should this be determined necessary. This would only occur if triggered by bathymetric monitoring results and with prior agreement from Hartlepool Borough Council and after consultation with the statutory authorities. (ES section 20.6.3.13). Levels of sedimentation will be monitored

in 5 locations on Seal Sands for 3 years following completion of the capital dredge (ES Appendix 14.2, section 7.2.7)

In –combination effects

The Northern Gateway Container Terminal proposal was considered in terms of potential in-combination effects. The NGCT Environmental Statement states that "the deepening of Seaton Channel will result in deposition of approximately a third of the increase of supply of fine sediment entering Seaton Channel resulting from the proposed NGCT deepening.
It is concluded therefore that the two schemes in combination would have a lower effect on Seal Sands..." (Sections 28.5.3, points 25 & 26).
With the LNG terminal/CHP plant proposal the effects of smothering have been assessed as minimal in comparison to background levels occurring (Section 14.7.1).

The dredging footprint associated with this development is identified in Figure 14.5 of the RSK Environmental Statement. Comparing Figure 14.5 with the PD Ports Figure 1.5 it is clear that the area of Dredge around the Seaton Turning Circle is common between both projects.

Furthermore, Section 13.7.2 details the requirement for dredging of the Teesside LNG Project identifying that the existing inset dock is currently maintenance dredged to -10.0m CD and is to be deepened to -13.2m CD involving a Dredge of approximately 200,000m3. Section 13.7.2 of the RSK Environmental Statement also identifies that the turning circle dredging would require approximately 100,000m3 albeit this 100,000m3 is common with the NGCT Project.

Table 13.1 of the RSK Environmental Statement details the cumulative impacts of the Dredging. Therefore the 200,000 m3 from the Teesside LNG Project represents in effect 3.3% by volume of dredge incombination with the other 2 developments.

Furthermore, 13.7.2 of the RSK Environmental Statement concludes that the Dredging for the Teesside LNG Project would have a small additive impact should both the NGCT Project and the Teesside LNG Project be consented.

All of the relevant pages from the Teesside LNG Project are attached herewith.

The incombination effect of the capital dredge of the turning circle by the Teesside LNG Project with the NGCT Project is nil as the areas of dredging are the same for both projects.

From the above it is concluded that the dredging of the inset dock for the Teesside LNG Project incombination with the NGCT Project has a small incombination additive effect with those two projects.

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The June 2007 TERRC Environmental Statement, Section 35 details the incombination effect between the TERRC Project and the NGCT Project. Appendix 35.1 in the TERRC June 2007 EIS details the incombination assessment and concludes that the impact between the TERRC Project and the NGCT Project are 'lesser impact with both projects proceeding'.

Therefore, given that the incombination effect of the Teesside LNG Project is a small additive effect to the NGCT Project; it is concluded that the incombination effect of all three projects proceeding compared to the TERRC Project in isolation is of a 'lesser impact' in terms of loss of accretion.

Toxic contamination

There are two broad sources of potential toxic contamination. Firstly what might be caused by the day-to-day operation of the site and the dewatering and re-flooding of the dock area. Secondly the indirect effects of the project in terms of dredging of the waterways and dock, cofferdam construction and removal.

The ES confirms that polluting operations may occur as a result of accidental spillage during the decommissioning of ships. Contaminated sediments inside the docks could then spread elsewhere through the dewatering and flooding of the dock.

The applicant has provided clarification of the working methods that are to be adopted so as to secure the containment of contaminated material arising from dock operations including the decommissioning and refurbishment of vessels. With regard to any vessels that have been treated with TBT the cutting of steel would take place in a controlled environment. A suitable geo-textile material to be agreed with the Environment Agency would be placed beneath areas to be cut to ensure containment of falling debris. In terms of detecting any dock floor contamination, inspections would take place on a 25 metre grid square basis. Should contamination be found the material would be removed to a required depth and the area re-tested for contamination. Once the dock floor is found to be clean it would be covered with clean material that would then be compacted to the required level.

The day to day operation and dewatering of the dock therefore is not anticipated to have a negative effect on the SPA.

Dredging of Seaton Channel has the potential to release historically contaminated sediments, some of which would be deposited on the SPA. These would then have the potential to be assimilated into waterbirds by bio-accumulation through the foodchains.

Section 21.3.6 of the ES states that the majority of the heavy metals, PCBs and hydrocarbons in the proposed dredging area are generally well below the recommended risk limits for effects on the ecosystem. Exceptions to this are four PAHs, however only one, Anthracene, is above levels that already exist within the surface layers of Seal Sands.

Para. 21.4.44 of the ES states that the anticipated worst case concentration of 0.4233 mg/kg for anthracene to reach Seal Sands is based on the worst case scenario for degradation and could easily be in the order of magnitude less, in reality concentrations are therefore likely to be significantly lower. Levels of anthracene in suspended sediment deposited are likely to be similar to or lower than PAH levels already found at Seal Sands.

In terms of potential for contaminants to be deposited on the SPA, a maximum of only 8% of dredged material will be lost from the dredge and therefore

available for re-sedimentation and contamination. The development proposals will actually be removing a substantial proportion of PAH contamination from Seaton Channel. Furthermore, it is likely that after the capital dredge, cleaner sediments will come in from the sea and deposit in the channel but since this is also subject to maintenance dredging there will be an overall long-term reduction of contamination in the local sediment system.

Impact – in combination

The potential for the deposition of contaminants from the dredging associated with the Norther Gateway Container Terminal and LNG/CHP Plant proposals has been considered in terms of in-combination effects. However it is judged that the same principles would apply as stated above ie that the dredges would be removing contaminated material from the SPA.

Two nearby sites have been identified as possible sources of additional waterborne contamination in the vicinity of the TERRC site. These are the Cowpen Bewley Landfill site at Billingham and Huntsman Tioxide. However discharge from the Cowpen Bewley Landfill site is unlikely to cause an in-combination effect because toxic contamination from the TERRC site has been identified as short-term (during dredging) and only PAHs are above benchmark levels. PAHs are not listed in the Huntsman Tioxide discharge. Therefore no in-combination effect has been identified.

The ES concludes in Section 21.5.5 that the resuspension on contaminated sediments will pose a short-term adverse impact on the local ecosystem, but will not harm the integrity of the protected sites or species in the area.

Noise disturbance

Impact alone

The Environmental Statement sets out in Table 8.2.1 of Appendix 8.2 of the ES the plant and sound power levels for the following categories of activity that will be centred on the dock.

A – Works associated with dock entrance and rock reinforcement including clearing of sill, import and placement of stone and piling.

B- Cofferdam construction works including dredging, sheet piling, filling dam wall with stone, removing water from dam wall, removing and rebuilding of central access section and sediment removal.

C- Noise associated with ship decommissioning in dry conditions including vehicle movements, metal cutting and shearing.

D- Other operations including construction, refurbishment and repair.

The Environmental Statement states that background noise levels were measured at the mid-tide shoreline of the SPA and were found to average 47.5 dba.

The ES has identified three noise assessment locations within the Seal Sands area opposite the TERRC site and the wider northern shore of the Seaton Channel.[1] Noise emissions were calculated as they would be heard at these locations allowing for distance attenuation.

The ES draws the following key conclusions with respect to the impact of noise on waterbirds:-

Quay construction / cofferdam construction and disassembly

Piling operations associated with the construction of quays 1, 10 and 11 and cofferdam construction are projected to be amongst the works that would have the greatest impact in terms of noise on the SPA. Piling associated with quay construction is projected to last for a period of 12 months. Piling operations associated with cofferdam construction is projected to last for a much shorter period i.e. 6-12 weeks with the likelihood of repetition in the event of cycles of partial disassembly and reconstruction.

[1] Appendix 1 – Noise monitoring and assessment locations (extract from Environmental Statement Appendix 8.2 – Novemebr 2005)

At receptor location 1 the noise emission levels resulting from the quay construction pile driver would be 64.1 decibels – noticeably in excess of the background levels. At locations 2 and 3 the impact is less significant.

The arrival of the first consignment of vessels to be decommissioned at TERRC will be followed by a period of cofferdam construction. The overall construction period is projected to be up to 22 weeks.

Each successive consignment of vessels will be marked by a period of partial disassembly of the cofferdam so as to allow entry to the reflooded dock via the central section of the structure. Following the arrival of the vessels the central section would then be rebuilt. The partial disassembly / rebuild element of the project would form a long term cycle however the potential disturbances attributable to it would be over shorter periods, with each phase projected to last for around 4 weeks.

Aside from piling, the other noticeably noisy operations associated with this process will be sediment deposition and removal.

Dredging operations

The Seaton Channel would be subject to capital dredging and periodic maintenance dredging. The ES demonstrates that a relatively small proportion of the Intertidal area would be exposed to noise levels in excess of 60 db[2]. The ES does not anticipate a significant effect on birds given the following attributes of the dredge cycle:-

- The temporary nature of the activity (anticipated completion within 12 months)
- The area affected by dredging noise is relatively small and will move progressively as the dredge proceeds along the channel.
- During the period November – February dredging will be restricted to the period outside of low tide (defined as 2 hours either side of low water) ensuring spatial separation of the dredging noise source and wader populations

Dock related activity

The ES states that maximum noise emissions associated with dock related activity including excavators, dump trucks crane and metal shear is anticipated to be 57.9 dba at SPA location 1. This is similar to levels already consented at TERRC which were assessed in 2001 up to 56.4 dba (the difference between the two considered to be de minimis in terms of impact on birds)

[2] Appendix 2 – Sound Level Plan in relation to SPA (extract from Environmental Statement Appendix 8.2 – November 2005)

It is recognised that refurbishment process will occasionally necessitate the grit-blasting of hulls. The Environmental Statement demonstrates that this process would generate around 120 decibels at source. Because the processes would be undertaken on the dock floor the cofferdam or dock gates would act as barrier helping to attenuate the impact of noise on the SPA. Furthermore the noise emissions are predicted to be similar to that generated by excavators involved in decommissioning processes (116 dba at source).

Construction of new buildings

The construction of new buildings adjacent to the dock basin will occur over a temporary period and is expected to cause noise levels to reach a maximum of 57.9 dba as experienced on the SPA. As explained above this would be only marginally above the consented level.

Operational noise associated with buildings

The noise emissions associated with these processes are anticipated as likely to have a negligible impact on the SPA. The Environmental Statement indicates that operational noise emitted in connection with the turbine fabrication buildings and from use of the railway sidings will be perceived on Greenabella Marsh at levels less than the current background levels of 47.5 dba.

Traffic Noise

There would be a slight increase in the level of traffic leaving and entering the site prior to mitigation measures (introduction of travel plan). However this is considered to have a negligible impact on change in noise levels (it is understood that that a 3db increase or decrease in noise levels requires a doubling or halving of traffic flows).

Noise from previous monitoring operations

The ES makes the following representations with regard to such noise emissions.

The predicted noise levels set out here can be compared with the monitoring of trial exercises previously carried out on the TERRC site.

In October 2001 RPS submitted to Hartlepool Borough Council a report "Teesside Environmental Reclamation and Recycling Centre, Graythorp, Hartlepool. Environmental Monitoring". This report provided information for an assessment to be made as required by Regulation 48 of the Conservation (Natural Habitats &c) Regulations 1994. Included within the report were details of noise levels created by various industrial activities on site. Some of the noisiest operations related to loading and unloading rock armour at Quay 10. The noise monitoring equipment at 100m distance registered a noise level of 66.5dB. Given a distance attenuation 48dB, the noise level at source on the

quayside must have been 114.5dB. Emissions at this sound power level would therefore be perceived at the three noise sensitive locations (used in these calculations) as follows:

Noise Sensitive Location on the SPA	**Noise Level dBA**
1	56.4
2	55.9
3	54.7

This indicates that noise attributable to piling, dredging and cofferdam operations will tend to exceed that attributable to currently consented dock operations. However other proposed operations in isolation will only marginally exceed these levels.

Impact in-combination

Certain projects and processes have been identified as causing noise that has the potential to act in-combination with the various operations either existing or for which consent is sought.

Dredging / Piling - For short period when dredging and piling are undertaken in same location the combined noise of 67.1dba may result in redistribution of species from Part of SPA nearest to quay 1.

Cofferdam construction / disassembly – The proposed alternative locations for the siting of the cofferdam are further away from the SPA than Quay 1. As such the in-combination effect of cofferdam construction / disassembly with dredging and with quay construction would be less than that associated with dredging and quay construction.

Power Station discharge - The ES indicates that during noise monitoring operations undertaken during 2001 pressure discharge events associated with the power station were noted. These events averaged 92.6 db at the east of the dock entrance. This would have been perceived on SPA as short very noisy event, however is one which existing bird populations would appear to tolerate or have habituated to.

Tees Offshore Wind farm - The ES indicates that both the constructional and operational noise emissions from this project at the SPA shoreline would amount to less than 35 and 37 db respectively. These levels are below the background level of 47.5 db and as such would not be detectable.

Proposed Conoc Philips Project –

The sound power level of the noisiest construction activity at Conoco Philips is derived from the ES table 8.8 to be 118 dB(A).
The sound power level of the noisiest operational activity at Conoco Philips is derived from the ES table 8.11 to be 106 dB(A).

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TERRC CONSTRUCTION v. CONOCO CONSTRUCTION OR OPERATIONAL NOISE

There will not be an adverse in-combination impact with construction noise from TERRC given the mitigations measures to be imposed on the TERRC project concerning suspension of working around low tide.

TERRC OPERATION v. CONOCO OPERATION NOISE

The noise maps produced by Conoco Phillips (their appendix 8.3) indicate that operational noise levels will be 40 - 45 dB(A) (worst case scenario within the vicinity of the northern shore of the SPA). This is below the background noise level readings taken on the SPA in this location (47.5 dB(A). - TERRC ES) therefore an in-combination impact between TERRC and Conoco operational noise is negligible.
On the Conoco side of the SPA noise from TERRC would be subject to distance attenuation of 72 dbA reducing TERRC operation noise from 117 dB(A). on the TERRC quayside to 45dB(A). In this position given the background noise levels are unlikely to be less than 47.5 dB(A). there would not be an in-combination effect.

TERRC OPERATION v. CONOCO CONSTRUCTION NOISE

During Conoco construction works noise levels would be 12 dB(A). higher than operation noise levels (see initiall points above) therefore 52 to 57 dB(A). (within the vicinity of the northern shore of the SPA). In a worse case scenario there would be an additive effect between Conoco and noisiest TERRC operations calculated to be 57.9 dB(A).. This will have an additive effect of 3 dB(A). resulting in around 61 dB(A).. However given that the noisiest Conoco construction works are calculated to be 74 / 75 dB(A). at the closest SPA locations to their site it is reasonable to expect that Natural England will require them to be suspended around low tide within the vulnerable period (November - February) to prevent disturbance. Furthermore Conoco Phillips have confirmed that construction will be managed to restrict noisy activities to dates specified by the relevant statutory consultees. Taking this into account there would then be no additive effect.

The ES states at para 35.3.28 that underwater noise will be generated from the dredging activities and possibly during construction. No information is available on frequency and volume of underwater noise. It would act in-combination with noise generated by shipping and other projects. This impact will however be short term.

The ES within section 20.6.8 adds the following explanatory text with regard to noise impact:-

Further points of explanation are needed. If a location is subject to two separate but identical sources of steady noise the resulting noise level is increased by 3dB. The ambient noise level on the north shore of the SPA was measured at 47.5dB. Any noise arriving at that location from TERRC activities was added on to the ambient, so even if it were only 47.5dB, the combined effect is calculated as 47.5dB + 3.0dB = 50.5dB.

The operations described here will not necessarily take place in isolation. Several processes could take place simultaneously so that the sound levels received on the SPA would be the summation from different sources.

A worst case scenario would be a dredger in the channel, piling on the north shore at Quay 10 or 11 and the dock in full decommissioning operations the nearest point on the SPA would be location 1 (see figure A8.2.1 in EIS

Appendix A8.2). Noise levels at location would be as follows:-

Piling 64 dB
Dredging in the channel 61 dB
Decommissioning 58 dB

__
Using BS5228 to add noise levels
total noise 67dB

However this does not take into account mitigation. No dredging will take place during the period two hours either side of the low tide during the months of November, December, January and February or piling during that tidal period during the months of November, December, January and February. So when migratory birds might be on the intertidal mud flats in the SPA, closest to the TERRC activities, sound levels would be restricted to 58dB. This is an increase of 10.5dB over ambient noise levels.

When the calculations were done, the metal recycling facility was expected to be adjacent to Quay 11. It has subsequently been moved to the south west side of the dock and provided with an acoustic barrier to protect Greenabella Marsh. This revised location, the noise impact, and its mitigation are all fully detailed in the November 2005 EIS. However, the noise impact calculations for the three sample locations on the SPA, still assume the metal recycling facility will be at Quay 11, a much closer position. To this extent, the predicted sound levels on the SPA shoreline are inherently over estimated.

Mitigation

It can therefore be seen that dredging and piling operations both alone and in-combination with one another will be the noisiest operations as experienced within the SPA area. The cofferdam construction / disassembly involve similarly noisy processes but will be further away from the SPA than the noisiest quay construction/ dredging operations. As such the noise impact of the cofferdam element of the project will not be as great.

It is confirmed within the mitigation sections of the ES and the draft Conservation Management Plan at Appendix 14.2 of the ES that the applicant proposes not to undertake any dredging, piling or cofferdam construction or disassembly work within the period 2 hours either side of low tide during the period November - February so as to minimise disturbance to feeding birds.

Conclusion (Noise disturbance issues)

It is therefore considered that the maximum noise impact on SPA citation species will derive from piling operations in conjunction with dredging work but that this will occur for a finite and short term period only i.e. around a year. There will be repetitive short term phases associated with the disassembly and reconstruction of the cofferdam. Overall the impact is considered to be short-term minor moderate negative in keeping with the findings of the ES. With the mitigation measures described above i.e. enforcing time constraints on piling, dredging and cofferdam construction and disassembly operations the impact would be reduced to neutral.

APPENDIX E

It should be noted that existing bird populations are known to tolerate the existing noise climate (para. 17.5.10). Operational activities within the dock area would generate noise levels similar to those generated by existing activities at TERRC.

Visual disturbance (from people and light) - caused by the day-to-day operation of the site, the construction and removal of the cofferdam and other works.

The ES draws a number of conclusions regarding visual disturbance impacts.

It recognises ambient lighting levels are already high given the presence of Huntsman Tioxide and the British Energy power station either side of the application site. This is already likely to influence bird behaviour and there would be no added effect due to the operation of the site.

Lack of public access to the sea wall and separation distances between the site and the sensitive areas of Seal Sands and Greenabella Marsh will help to mitigate against negative visual impacts. It is recognised within the ES that there may be some visual disturbance attributable to human shapes appearing above the skyline in connection with work undertaken on the cofferdam. However these disturbances will be at distance and are likely to be intermittent and short term given that such personnel will for most of the time be inside construction vehicles which would not be expected to give rise to the same degree of disturbance.

Overall the impact is expected to result in neutral visual disturbance. Evans and Ward (2000 – 2001) concluded that bird behaviour and distribution was mainly explained by availability of feed areas.

Impact in-combination

The proposed Teesside offshore wind farm is over 4km from the TERRC docks and therefore no in-combination effects through visual disturbance are predicted.

Unlicensed bait digging activity is known to occur on Seal Sands. Natural England recognises that due to potential in-combination impacts, licences for bait digging activities may not be issued. Such activities already occur on the Bran Sands area however this is too far away from TERRC to give rise to an in-combination impact.

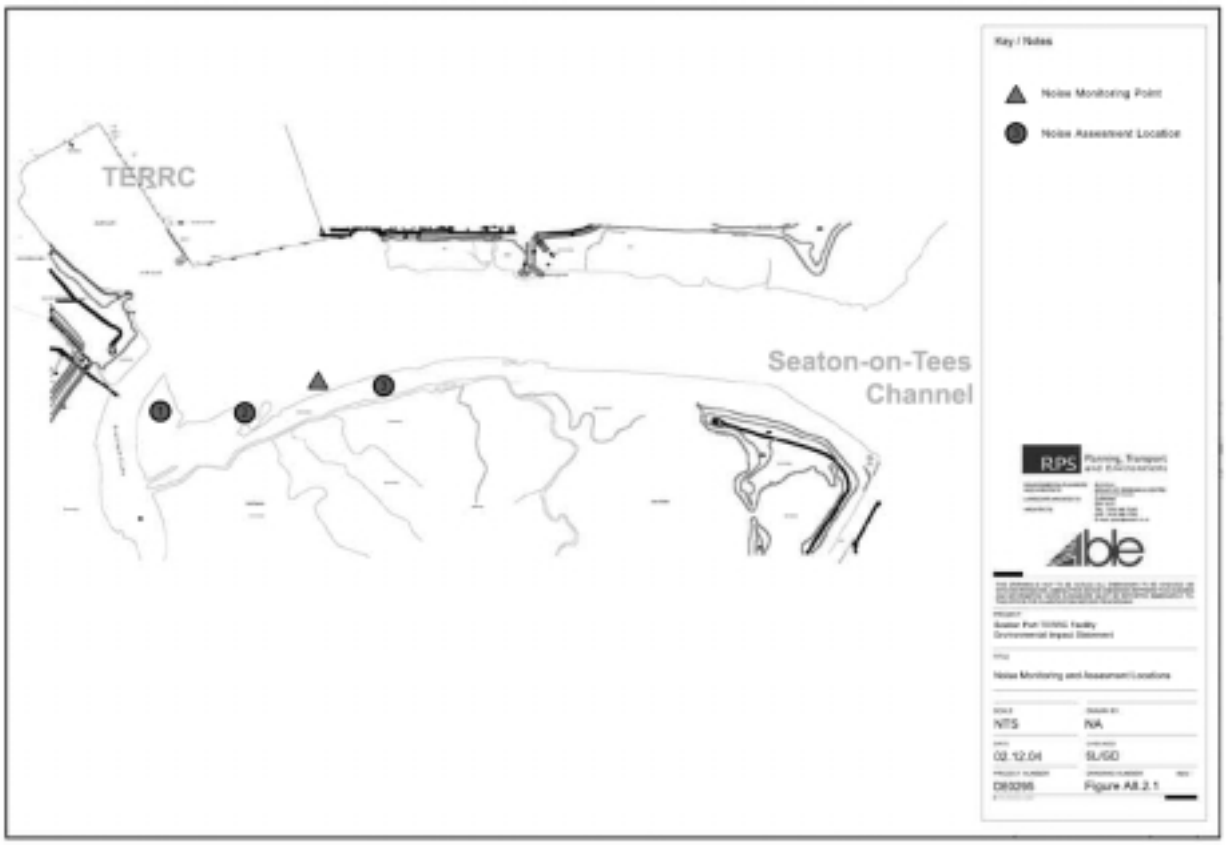
There will be some additional shipping associated with the project however any disturbances caused will be for a very short-term period only.

Odours - caused by the day-to-day operation of the site, the dredging of the waterways and dock, coffer-dam construction and removal, among other works and the dewatering and re-flooding of the dock area.

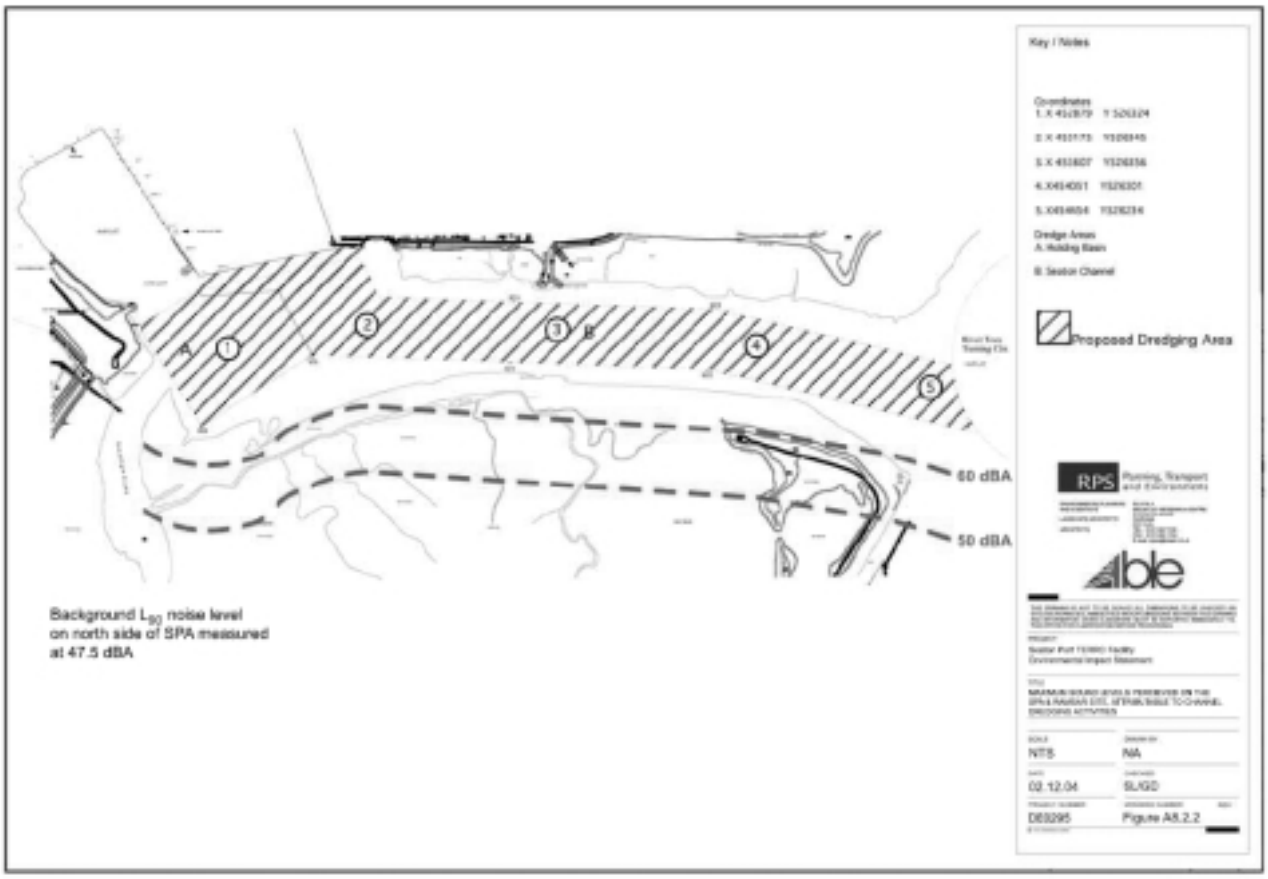
The ES contends that as waterfowl often frequent a variety of areas that emit natural odours e.g. decaying seaweed along the tide line, birds are not likely to be affected by odours from low concentrations of gases such as Hydrogen sulphide.

After the cofferdam has been constructed, the dewatering activities to create the dry dock may result in odours being emitted from the exposed sediments. However, these are not expected to result in any significant adverse effects. The overall significance of this impact on birds is considered to be neutral**.**

Appendix 1 – Noise monitoring assessment locations



Appendix 2 - Sound Level Plan in relation to SPA



APPENDIX F

APPENDIX 14.2

CONSERVATION MANAGEMENT PLAN – July 2007

Version 1

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FIGURES

TABLES

1. INTRODUCTION

1.1 Background

1.1.1 Able UK Ltd of Billingham, Teesside is applying for planning permission for a change of use and construction of essential associated infrastructure at the TERRC dock facility at Graythorp.

1.1.2 The proposal was (a) to construct a dam or cofferdam across the dock basin entrance, pump the dock dry and potentially to install purpose made steel dock gates. The cofferdam will then be removed and the dock can be used either as a dry dock or as a tidal facility, (b) additional use of the TERRC facility to allow for the construction, repair, refurbishment and decommissioning of a wide range of ships and (c) construction and refurbishment of infrastructure, including:

- re-construction of Quays 1, 6, 10 and 11;
- refurbishment of Quays 7, 8 and 9;

1.1.3 The following development description relates to the totality of the three planning applications.

" To extend the current use of the site to include:

The construction, repair, refurbishment and decommissioning of all types of ships, vessels and other craft as described more comprehensively in the EIS. Operational development consisting of:

- The construction of Quays 1, 6 10 and 11: refurbishment of Quays 7, 8 and 9;
- Construction of the cofferdam;
- Construction of new dock gates;
- Installation of railway track;
- Construction and operation of the metal recycling facility;
- Erection of industrial buildings for the manufacture of wind turbines;
- Erection of warehouse buildings;
- Construction of two holding tanks in connection with the drainage design;
- Construction of the sump in the dry dock basin;
- Construction of temporary secondary clay bund in the dock basin
- Dredging works being carried out within the dock basin and above the low water line;

- And engineering works associated with the construction of the mooring bollard and sheet piling structure to protect the British Energy Power Station Foreshore.

1.1.4 To address these potential impacts in a co-ordinated and effective way, it was agreed with the regulators that a Conservation Management Plan (CMP) would be produced. It was recognised that this plan would require ongoing development particularly in light of additional information that may arising following submission of the planning application. It was further agreed, therefore, that this CMP would be submitted as a draft document.

1.1.5 This document provides information on:

- the objectives of the CMP;
- the process by which the CMP has been compiled and delivered;
- the mitigation measures necessary to minimize the impacts of the scheme proposals; and,
- details of the monitoring programme necessary to ensure the CMP delivers effective mitigation.

2 Site Description

2.1 Conservation status

2.1.1 The TERRC site lies in the vicinity of several areas of international conservation importance, which together form part of the Teesmouth and Cleveland Coast SPA and Ramsar Site. The boundary of the SPA and Ramsar Site is mid channel of the Seaton on Tees Channel, which flows into Teesmouth. These areas are also of national conservation significance and have been designated a National Nature Reserve (NNR) (Teesmouth NNR). They are important for the large numbers of migratory waterfowl and wading birds, which visit the mudflats to feed in winter. Other features of interest include a representative range of sand dunes and saltmarsh communities with two nationally scarce plant species, the Rush-leaved Fescue and Stiff Saltmarsh-grass. It also supports a population of the nationally scarce Lyme Grass Moth.

2.1.2 Six Sites of Special Scientific Interest (SSSIs) are adjacent to, or nearby, the site. The Hartlepool Submerged Forest SSSI, which is about 5.5 km around the coast from TERRC, is important for organic and inorganic deposits, including a peat bed located in the inter-tidal area south of Hartlepool. The site provides important evidence for sea level changes over the last 5,000 years.

2.1.3 Seaton Dunes and Common SSSI, an area of sand dunes and grazing marsh, is approximately 0.5 km north and east of the TERRC Site. The site is important for its flora, invertebrate fauna and bird life. The variety of habitats includes a range of sandy, muddy and rocky foreshore, dunes, dune slacks and dune grassland as well as relict saltmarsh, grazed freshwater marsh with dykes, pools and sea walls. In addition there is an interesting and rich flora, including the nationally scarce Rush-leaved Fescue and Stiff Saltmarsh-grass and uncommon plants such as Strawberry Clover, Wild Celery, Knotted Hedge-parsley and Adder's-tongue Fern. The Stiff Saltmarsh-grass is at the northern edge of its range. The local population has declined from a presence in 16x10 km squares pre-1970 to a presence in only 1x10km square post 1970. Strawberry Clover is declining and has been introduced in Durham. The SSSI is the northernmost limit for the snail Hydrobia ventrosa, and supports two nationally notable species of beetle Hydnobius perrisi and Philonthus atratus and a nationally scarce spider Silometopus incurvatus, now known as Trichohydnobius sutralis, a Red Data Book species, is a very local species with a scattered distribution. P. atratus is a Rove Beetle at the northern limit of its range. S. incurvatus is a money spider only found in three other locations in Britain, the nearest being the south side of the Firth of Forth.

2.1.4 The water in the basin on the site mixes with the Seaton on Tees Channel, which joins the River Tees just to the south west of Teesmouth. The channel borders an extensive area of inter-tidal mud flats forming the Seal Sands SSSI. Large areas of the estuary have been reclaimed for industrial development making the remaining mudflats particularly important. The boundary of the Seal Sands SSSI lies immediately adjacent to the south eastern side of the site. It extends from the mudflats on the northern banks of Seaton on Tees Channel, includes the

whole of the channel and the extensive area of mud flats located to the south of the channel. The Seal Sands SSSI is particularly important for bird species and supports large numbers of birds including, for example, Shelduck and Knot. The bird populations of this area are described in more detail in Section 17 of the Environmental Statement. As the name suggests the area is also an important breeding site for Harbour Seals (also known as Common Seals). The area is also used by Grey Seals. Seals are not directly protected under the Teesmouth and Cleveland Coast SPA. However, Common Seals and Grey Seals are both in the UK Biodiversity Steering Group long list and as such are classified as "species of conservation concern".

2.2 Existing management

2.2.1 Currently there is no existing conservation management of terrestrial or intertidal habitats within or adjacent to the TERRC dock facilities (INCA pers. comm.).

2.2.2 In the wider Tees Estuary, habitat creation has included the development of new wetland habitats at Saltholme Pools under the guidance of the RSPB and Tees Estuary Trust (TET).

2.2.3 In the late 1990's dredged material was used to create high tide roosting islands within the estuary (INCA pers. comm.).

2.2.4 It is recognised that there are discussions involving various organisations (EN, EA, INCA, the Wildlife Trust and Tees Forest) to develop a strategic plan for the Tees Estuary (INCA pers. comm.). There is potential for this conservation management plan to contribute to the objective of the strategic plan.

3 MANAGEMENT AIMS AND OBJECTIVES

3.1 Aims and objectives

3.1.1 The aim of the CMP is to clearly identify those works, procedures, specific actions, monitoring surveys etc. required ensuring that potential impacts on identified nature conservation interests are mitigated in accordance with the commitments outlined in the ES.

3.1.2 The specific objectives of the CMP are to identify and define:

- working procedures for activities that have the potential to cause impact;
- the location, timing and scope of pre-construction surveys;
- specific mitigation actions required to minimise identified potential impacts, including habitat replacement; and,
- monitoring surveys.

3.2 Implementation of the Conservation Management Plan

3.2.1 This Version 1 CMP is intended as a working document which will be further developed through discussion with relevant parties including TEAG (TERRC Ecological Advisory Group).

3.2.2 The implementation of a final approved conservation management plan would commence once agreement had been reached with HBC, EN and EA. This is to be achieved through the following objectives:

- The plan should be acceptable to all parties concerned, namely ABLE UK, Hartlepool Borough Council, Natural England, Environment Agency, INCA, the Wildlife Trust and the RSPB.
- After the construction has finished and during operation, the site should seek to at least return to the conservation interest of the site as identified in the EIA.
- The plan should include a monitoring and review process sufficient in order to ensure that the conservation objectives for the site are achieved.

3.2.3 TEAG will also be a forum through which the continued progress of conservation management plan will be reviewed and revised, subject to approval and acceptance by Hartlepool Borough Council.

4 Working procedures

4.1 Introduction

4.1.1 This section identifies appropriate working procedures for construction and dredging activities identified in the ES as having potential to cause impact to nature conservation interests. The specific activities covered are:

- Dredging associated with the deepening of the channel berthing pockets at Quays 10 and 11 and removal of sediments from the dock.
- Piling activities associated with the quays and shoreline protection works.
- Construction of a coffer dam.
- Ongoing removal and replacement of the coffer dam.

4.1.2 The EIS identified disturbance arising from noise generated during these activities, and pollution, particularly in the form of sediment liberation as key potential impacts. The working procedures identified here are intended to restrict the magnitude of these potential effects by limiting the activity to periods when species are least sensitive (or absent) or specifying particular working practices that limit noise or pollution generation at source.

4.1.3 Details of pre and post-construction monitoring are detailed in sections 5 and 7 and listed in Table 7.

4.2 Coffer dam assembly/disassembly

4.2.1 To enable structures and vessels to be decommissioned in dry dock it is necessary to close the dock and drain this of water. Able propose to do this using a coffer dam which will have to be constructed and semi-deconstructed will each consignment of vessels/ ships. This will be placed across the mouth of the TERRC dock.

Timing of operations

4.2.2 The assembly and disassembly of the cofferdam will avoid the period two hours either side of low tide during the months of November, December, January and February Table 7 details the mitigation timing of activities.

Assembly and disassembly activities

4.2.3 Construction operations for the cofferdam would involve the following:

- Approximately 28,000 cubic metres of sediments and other alluvial deposits would have to be dredged from the footprint of the dam. This operation would take 2-4 weeks. Disposal of the sediments is subject to their sampling and testing.

- Sheet piling would then be installed to form two parallel walls across the dock entrance. Short sections of sheet piling would cut across the dam wall at 90^0 to form a dock entrance in the centre of the structure. This stage of the works would take 6-12 weeks.

- The two arms of the cofferdam would be backfilled with aggregate being brought in by lorries and end tipped off each side of the dock, backfilling towards the centre of the dock entrance or by ship. A dozer will then distribute stone. This will take 4-6 weeks. The centre access through the cofferdam will either be sealed by sheet piling within a stone bund requiring importation of tested, clean and approved stone using the same technique. As and when it is necessary to open access through the centre of the cofferdam a tracked excavator with dump trucks will excavate stone from that part of the bund and carry it into storage areas on either side of the cofferdam. It will take around 2 weeks to open and 2 weeks to close the cofferdam.

4.2.4 When the cofferdam is to be removed the construction procedure would be reversed.

4.3 Dredging operations

Overview of activity

4.3.1 There are five dredging areas being considered as part of the capital dredge;

- the dock;
- coffer dam area (see coffer dam construction);
- quays 10 and 11 and between quay 11 and Power Station CW intake;
- holding basin;
- and Seaton Channel.

4.3.2 Seaton channel will also require annual maintenance dredging.

4.3.3 Models have been set up by DNV for the dredging. This considers the 11 dredging scenarios and considers the impact within the Tees Estuary and Tees Bay. For modelling purposes, a backhoe dredge was proposed for dredging the cofferdam area and Quays 10 and 11. A hopper dredge was simulated in the sediment model in the Seaton Channel and holding basin. DNV have also assessed the impacts from hydrodynamic changes as a result of closing off the dock basin.

Pre-dredging

4.3.4 The pre dredging requirements include surveys to determine the physical and chemical nature of the seabed and its topography.

4.3.5 These surveys which have already been carried out give up-to-date baseline data from which to monitor the changes that could be influenced by the dredging.

Dredging & Construction Methods

Dredging methods

4.3.6 Two types of dredger will be used, a hopper dredger and a backhoe/ladder bucket dredger.

4.3.7 Operational controls will be explored to protect the Power Station CW intake.

4.3.8 Accidental spillage of oils from the working vessels will be safeguarded by the adoption of best working practices.

Timing

4.3.9 The seasonal timing of dredging and disposal operations will influence the potential environmental effects. Mitigation constraints are set out in Table 7.

4.3.10 Dredging is proposed intermittently over a 12-month period so that sensitive periods in the year can be avoided (see Table 7).

4.4 Piling associated with Quay works

Overview of activity

4.4.1 It is proposed to construct Quays 1, 10 and 11 and raise the quayside height to 5.0m AOD for flood protection measure required by the EA at

the TERRC facility. Piles will be used as support to these structures. Sheet piling will also reinforce the BE frontage between Quay 11 and the power station cooling water intake. The process of driving these piles into the ground will create noise.

4.4.2 Piling operations will follow good engineering techniques that will be designed taking into consideration the specific conditions to encountered. This will include the use of 'soft start' procedures (noise builds up gradually).

4.5 Operational activities

Overview of activity

4.5.1 The activities associated with the operation of TERRC docks are based around the following:

- Transportation of the various ships, vessels and other craft to the site.
- Storage of the ships at the site and temporarily outside the cofferdam area.
- Remediation, refurbishment and repair of ships in both wet and dry dock conditions. Decommissioning will only take place in dry dock conditions.
- Processing materials including dismantling, salvage, storage, and removal of recyclable materials and the temporary presence, handling, extraction and removal of waste materials.
- Land reclamation, changes to land surface required to accommodate processes listed above.
- Transportation of waste recyclable materials from and within the site.
- Disposal of all waste materials whether by landfill, chemical treatment or incineration.
- Recycling or recyclable materials both at and beyond the site.
- Construction of five buildings and rail access.
- Quay refurbishment.
- Dredging.

4.5.2 During night-time operations the use of directional artificial lighting will limit the illumination of the neighbouring protected areas.

4.5.3 At all time good engineering practice will be followed using well maintained equipment to ensure noise generating activities are kept as quiet as possible.

5 Pre-construction surveys

5.1.1 The ES concluded that it was unlikely that there would be any protected species within the TERRC site at risk from proposed construction activities and operation of the site. It was noted, however, that there was habitat in the northern part of the site potentially suitable for reptiles and that there are aquatic habitats of low habitat quality in the eastern part of the site with potential to support amphibians.

5.1.2 It was indicated in the ES that pre-construction surveys was undertaken and that protected species were not present.

Reptiles

5.1.3 In the event that works associated with railway tie-in are undertaken to the north of the existing railway the following surveys will be undertaken to ensure that reptiles are not present. The location of the survey area is indicated in Figure 5.1.

5.1.4 In the first instance a habitat survey will be undertaken within 100m of the location(s) of the proposed works. Potential reptile habitat will be identified and mapped, as Common Lizard is the most likely species, specific attention will be given to areas of neutral grassland and scattered scrub. Areas of potential habitat will be clearly identified through the erection of high visibility fencing, for example) and, to the extent possible, these will be avoided during construction works.

5.1.5 In the event that it is not possible to avoid these potential habitat areas, the absence of reptiles will be confirmed through targeted surveys. These will be undertaken between April and September. Surveys will be conducted for reptiles (focusing particularly on Common Lizard) using refugia composed of squares (approximately 0.5m^2) of roofing felt (or similar material) distributed within suitable habitat. For Common Lizard this includes:

- open patches to bask in, especially piles of rubble and wood in sunny areas;
- ground cover of ivy (especially good for lizards to feed and avoid predators);
- dense but short vegetation, open to the sun; and,
- scrub.

5.1.6 Standard survey methodologies will be followed using recognised techniques suitable for the specific features of the site. For instance Reptile survey methods will follow those detailed in Herpetofauna Workers' Manual. (JNCC 1998). See Appendix A as an example of the survey methods to be employed.

5.1.7 As reptiles are protected under the Wildlife & Countryside Act 1981 (as amended), appropriate steps will be taken to capture and relocate any individuals present within affected habitats and to prevent other individuals to entering those habitats. These actions (should they be required) will be undertaken in accordance with a mitigation plan to be drawn up and agreed with Natural England following completion of the pre-construction surveys.

Amphibians

5.1.8 As discussed in paragraph 5.1.1-5.1.2 the habitat survey indicated that the there was no presence of European protected amphibians species (Great Crested Newt). This finding is supported by the absence of recent records of these species in the area and subsequent discussions with Natural England.

5.1.9 Otherwise prior to construction works at TERRC surveys for amphibians will be undertaken within any aquatic habitats likely to be disturbed or removed as a result of construction activities. These surveys will comprise, in the first instance, a habitat inspection to identify the likelihood that amphibians are present. This assessment will identify and assess the quality of habitat based on the presence of features that are considered to be important for amphibians:

- water depth
- water quality
- accessibility of margins
- presence of marginal vegetation
- presence of suitable adjacent terrestrial habitat
- other features, such as presence of fish which prey upon amphibian larvae

5.1.10 In addition a visual inspection for amphibians will be undertaken. The location of the survey area is indicated in Figure 5.1.

5.1.11 (Not used).

5.1.12 (Not used).

5.2 Waterfowl Surveys

5.2.1 In order to provide a baseline against which the intertidal habitat creation/restoration activities can be measured waterfowl surveys have been undertaken. The aim of these surveys is to provide information on bird utilisation of an area of habitat likely to be lost as a result of the dredging activities associated with the TERRC dock developments on the northern shore of Seaton Channel. However, the intertidal area to be lost

is less than 0.3% of the total intertidal area, and as shown in Section 6.3 here, it contains much reduced abundance of invertebrates as a source of food for the birds using the SPA.

Survey period

5.2.2 The waterfowl using the intertidal mudflats on the northern shore of Seaton Channel have been monitored twice a month for the 2005/06 season ending 31st March. Bi-monthly surveys are required in order to account for the normal variation associated in bird numbers.

Study Area

5.2.3 The section of shoreline, known as DT019, based on previous Wetland Bird Survey (WeBS) counts in 1996-1997. The area of inter-tidal loss is referred to as "Dock North" in the 2005/2006 surveys. See Figure 5.3.

Protocol

5.2.4 This protocol describes the methods to be used to collect the spatial and temporal data on waterfowl using the study area.

- The type of count data required is low tide feeding counts similar to those collected by Evans & Ward 2000 and 2001.
- A competent ornithologist has visited the above area to undertake low tide counts from suitable vantage points within Able UK's facility (ensuring the observer does not influence bird behaviour). Suitable optical equipment will be used to identify and count the birds.
- Counts will start at least 2 hours before low water and last until at least two hours after low tide. Where possible the observer will count from the first appearance of mud to the lowest part of the tide, and from low water until all the mud is covered.
- All bird species and their numbers in each area will be mapped and tabulated onto appropriate survey recording forms. Birds will be counted every half-hour using this method.
- Tide tables will be used to confirm the start and end times of the above counts.
- The information collected will be presented in tabulated and mapped form.

Reporting

5.2.5 The data will be analysed on a month-by month basis, using mean and peak counts, and a full report submitted on completion of the survey.

6 Ecological mitigation

6.1 Terrestrial habitats

Neutral Grassland Habitat

Replacement grassland

6.1.1 The construction of the noise attenuation barrier on the western boundary of the site provides an opportunity to relocate any areas of neutral grassland (including those with calcicolous plant species) that will be lost during construction. These areas have low intrinsic value and are readily re-created so there are no specific methodological prescriptions for undertaking this translocation, except that plant material should be moved with its substrate and that the translocation process should involve as few stages as possible (i.e. minimise extent to which the vegetation is moved to interim storage locations). Appropriate aftercare, including watering and weeding, should be undertaken once translocation is completed.

Reptile Habitat

6.1.2 Pre-construction surveys will identify any need to create new habitat for reptiles. Should reptile mitigation be necessary an appropriate receptor site will be identified comprising an area at least the same size as the donor site.

6.1.3 The methods that will be followed are those described in the Herpetofauna workers' manual (JNCC 1998) and Reptiles: guidelines for developers (English Nature 2004). Appropriate licensing will be obtained prior to all these activities.

6.1.4 The actual procedure will be developed once pre-construction surveys are complete and the need for reptile mitigation identified. Prior to commencing reptile mitigation detailed procedures will be agreed with Natural England.

6.2 Freshwater aquatic habitats

Replacement of wetland habitats

6.2.1 Able UK has undertaken to replace and, to the extent practicable, enhance these habitats for wildlife. At this stage, the largest area of wetland likely to be affected is a small section of ditch located on the eastern boundary of the site. This ditch is currently fragmented and disturbed and is considered to provide low quality habitat, particularly amphibians. As indicated elsewhere in this plan, amphibian surveys will be undertaken to confirm the absence of these species prior to the

commencement of construction. The habitat replacement works described here will need to be undertaken in a way that is consistent with any agreed mitigation.

6.3 Inter-tidal habitats

6.3.1 In order to assess the value of habitat on the North and South sides of the channel as a feeding ground for birds the invertebrate species assemblages were assessed. Samples were taken using a 0.021m^2 grab. Macrofaunal data for each sample was converted to number of animals recorded $m^{2.}$. It should be taken into consideration therefore that the numbers recorded for macrofauna have been calculated in this way and are not actual numbers recorded in m^2 samples. Samples were collected from 5 sites on mudflats to the north of Seaton Channel (TS1-TS5) and 5 samples were taken within Seal Sands SSSI(S1-S5). Data regarding samples S57-S72 within Seal Sands SSSI has been extracted from the Physalia (2004) report.

6.3.2 Invertebrate species of particular interest are those which form an important part of the food web food for SPA designated species of birds which feed in the area. Teal, Lapwing, Shelduck, Sanderling, Redshank, Little tern, Sandwich tern and Knot all feed on the important prey species Mussel Mytilus edulis, cockle Cerastoderma edule, tellin Macaoma balthica, mud snail Hydrobia ulvae, dog whelk Nucella lapillus, ragworm Nereis diversicolor, and common periwinkle Littorina littorea (Tansley, 2003). In addition to the prey species by Tansley Corophium is another prey species recognised as important in the estuary. In order to assess the value of the North Bank (Table 6.3a) and Seal Sands (Table 6.3b) habitats as feeding grounds, the abundance of prey species was assessed.

Table 6.3a

Class/Family	Genus/Species	TS1	TS2	TS3	TS4	TS5	Average m2
Hydrobiidae	Hydrobia ulvae	15.	149	117.	31.3	7.6	64.16
Mytilidae	Mytilus eduluis	62.	101.	23.3	7.6	0	39.02
Tellinidae	Macoma balthica	7.6	0	39	7.6	0	10.84

Table 6.3b Invertebrate abundance on Seal Sands

Class/Family	Genus/Species	S57	S58	S59	S60	S61	S62	S63	S6	S65	S6	S6	S68	S69	S70	S71	S72	S1	S2	S3	S4	S5	Average
Hydrobiidae	Hydrobia ulvae	0	300	0	66.6	900	1330	146	0	200	26	0	7233	2267	266	0	0	44	237	0	893	89	1909.3619
Mytilidae		0	0	0	0	0	0	0	13	0	0	0	0	0	133	0	0	11	0	0	14.6	0	70.466667
Cardiidae	Cerastoderma edule	0	0	0	33.3	0	133	0	0	0	33	0	0	166.	733	0	0	0	59	0	74	0	58.690476
Tellinidae	Macoma balthica	0	33.3	33.	33.3	0	133.	66.	0	0	0	80	166.	0	0	0	0	0	14.	0	59	0	29.52381
Corophiidae	Corophium volutator	523	2933	0	9233.	66	0	0	0	660	0	0	33.3	5,86	0	1253	5867	0	0	0	0	44	2305.2238
	Corophium arenarium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.6	0	0.6952381

6.3.3 The assessment of the macro invertebrate assemblage highlights that only 3 of the prey species can be found on the North Bank, while on Seal sands 6 prey species are present. Due to the lower diversity of prey species the habitat on the North bank of Seaton channel would therefore appear to be of a significantly poorer quality than Seal Sands as a feeding ground for bird species.

6.3.4 The average abundance of species can be seen to be several orders of magnitude higher on Seals Sands, compared to the abundance of species on the North shore. Numbers of Hydrobia ulvae on the North Shore were just 3.3% of the numbers reported on Seal Sands. While Mytilus eduluis was 55% as abundant and Macoma balthica was 18.5% as abundant on the North Shore as one Seal Sands.

6.3.5 The high abundance of macro invertebrates recorded from intertidal sites on Seal Sands compared to intertidal areas on the North shore of Seaton Channel, indicate that the Northern side of the channel offers a comparatively much poorer feeding ground for birds. This is supported by the historically low bird observations for this area of the North Shore of Seaton channel.

7 ECOLOGICAL MONITORING

7.1 Construction and Operation

7.1.1. A qualified ecological clerk of works will be appointed to monitor the construction and operational activities at TERRC docks and to be available so as to ensure that the wildlife objectives are met should additional constraints be encountered during the work.

7.1.2. The ecological clerk of works will monitor the presence, behaviour and response of ecological receptors (e.g. waterfowl and seals) during construction. The monitoring will help verify the predicted assessment impacts and enable the review and revision of procedures as a result of the monitoring results.

Pollution Monitoring

7.1.3. An environmental compliance/working plan has been prepared by Able UK to limit contaminants entering the marine environment. Monitoring of potentially polluting (chemical and biological) activities will be conducted using the procedures described in the Compliance Plan containing the bio-security measures detailed in Appendix 8.1 of the Environmental Statement.

7.1.4. A combined approach of water quality monitoring will be agreed with the EA and CEFAS to ensure a robust approach.

7.1.5. Quarterly water quality monitoring will be undertaken across the tidal cycle on a spring and a neap tide. Protocols will be agreed and set up with the regulators. A range of sample locations will be selected in Seaton Channel.

7.1.6. Mitigation needed to address the threat of introducing alien species and pathogens into the waters of Tees Bay have been developed within the framework of a bio-security plan. The most important element will be a risk assessment carried out on the vessel at its port of departure to assess whether or not the hull is carrying an unacceptable burden of alien species and pathogens.

7.1.7. The Bio-security measures will work on a precautionary principle and regards all sub vectors unless testing confirms otherwise as being waste needing collection, containerisation and disposal of in landfill or through robust treatment processes.

7.1.8. Able UK Ltd proposes also to adopt the precautionary principle with its bio-security arrangements. That is to say that it will adopt a risk assessment approach to bio-security and utilise scientific evaluation to assess the threat posed by a unit. If there is residual doubt the sub-vectors will be regarded as posing a high risk and dealt with

appropriately. This would take into consideration the age and state of repair of the ship, the port from which it is leaving and hence the species that may be brought across to Teesside and the likelihood of establishment within the Tees estuary ecosystem. A risk assessment would be completed before the ship enters UK waters.

7.1.9. It is proposed that where a high risk has been identified protocols for ships entering the estuary and being stored within the TERRC facility are agreed with the Environment Agency. The risk assessment procedure and these protocols are discussed below. Bio-security procedures are also presented in the Waste Management Licence Compliance Plan.

7.1.10. The following evaluations will be conducted at the point of departure (for marine units bound for TERRC):

- Statement of marine unit's history – in particular an evaluation of previous global movements so that target species list can be widened to account for previous history if necessary.
- Bio geographical matching with Teesside (if possible) and literature search for target species list.
- Ballast tank sampling – water and sediments. The minimum analysis should be for the generic target species list that includes known pathogens.
- Visual Inspection of superstructure to assess guano accumulations.
- Installation of small mammal and invertebrate traps to assess onboard vermin

7.1.11. The bio-security of TERRC and its adjacent environment will be assured by a process of specific Alien Species Risk Assessments identifying target organisms of concern, generic deep-water sanitisation processes and then wastes containerisation and elimination at the facility.

7.1.12. It is expected that a solid framework will be established through the Bio-security Plan and this risk assessment approach, which will be implemented through the waste management licence to manage risk on a ship.

7.1.13. The limited knowledge of the effects of contaminants on marine life advocates the use of principles of precaution, and that limiting the amount of contaminants discharged, together with a monitoring scheme, is imperative to avoid negative effects. Pollution control and monitoring schemes are discussed in the Compliance/ Working Plan. These will be agreed with regulators.

Dredging Monitoring

Sediment testing before and during dredging

7.1.14. Sediment monitoring will be undertaken by testing of sediments. This is part of a wider national program to integrate biological tests into decision making for sea disposal.

Post dredging and construction

7.1.15. Able UK Ltd will undertake hydrographic (topographical) surveys immediately after channel dredging is complete and at annual intervals to define subtidal and intertidal features along Sections A-A, B-B, C-C and D-D.

7.1.16. If requested by HBC to redistribute maintenance dredgings on the channel inter-tidal foreshore, Able will include these areas in both ongoing topographical surveys as detailed above.

7.2 Wildlife

Marine mammals

7.2.1 Both seals and other marine mammal species use the Seaton Channel. Due to the duration of activities proposed at the TERRC dock to include installation of the dock gates and coffer dam, it is therefore suggested that a cetacean monitoring pod is positioned in the channel and the INCA Seal monitoring programme extended to cover the period of construction and operations at TERRC. This will provide information on the presence and response of marine mammals to construction and operational activities.

7.2.2 This monitoring will use marine mammal observers and will commence one week before construction operations commence and continue weekly and cease one week after operations cease.

7.2.3 The information gathered will include species identification and counts and behavioural observations in response to activities. The finding will be reported at the end of the survey period and the information fed into the review process with the potential to revise operations in response to the findings. The final methods, timing and duration of the monitoring would be agreed with Hartlepool Borough Council upon advice from TEAG.

Birds

7.2.4 Waterfowl surveys are based on the methods described in section 5 above to monitor the abundance of waterfowl on sectors of Seal Sands shown in Figure 5.3. Surveys would be undertaken after the construction phase. The final methodology, timing and duration of the

monitoring would be agreed with Hartlepool Borough Council upon advice from TEAG.

Benthic Invertebrates/Sedimentation

7.2.5 Benthic grab sampling and/ or core sampling is to be agreed and carried out in accordance with JNCC methodologies - Marine Monitoring Handbook (Davies et. al. 2001) and in agreement with the regulators.

7.2.6 Chemical and physical analysis of samples will be taken by any core sampling program. The scope will be agreed and implemented in consultation with the regulators.

7.2.7 Aluminium accretion plates, of approximately A4 size will be buried underneath the mudflats in 5 locations on Seal Sands to examine sediment accretion/erosion over time. The depth of the sediment overlying these plates will be monitored monthly during the capital dredge activity. This will be monitored post construction at annual intervals for a period of 3 years from the completion of the capital dredge.

7.3 Compensation

Terrestrial habitat

7.3.1 The monitoring programme for the terrestrial habitat creation will be developed to reflect the specific habitat mitigation required and agreed through TEAG.

Freshwater aquatic habitats

7.3.2 The monitoring programme for the freshwater aquatic habitat creation will be developed to reflect the specific habitat mitigation required and agreed through TEAG.

Intertidal habitat

7.3.3 As already indicated, the proposed loss of intertidal mudflats would amount to less than 0.3% of the total intertidal mudflats in the SSSI. Furthermore, the recent survey (Section 6.3) shows the shoreline section to be removed, to contain reduced numbers of invertebrates, compared with populations found on Seal Sands. The loss of the 0.56 Ha inter-tidal area will be compensated for by ABLE by way of a Section 106 agreement with the LPA.

In the event of some degree of mitigation being needed the following Sections 7.3.4 and 7.3.5 will be implemented.

7.3.4 The monitoring programme for the intertidal habitat creation will be developed to reflect the specific intertidal habitat mitigation.

7.3.5 The monitoring will include measures that reflect the system structure and function. Structural parameters such as species diversity and community composition can be used to indicate habitat function.

7.3.6 The process for monitoring the restoration of intertidal habitat will be developed and agreed with HBC in consultation with TEAG. This will ensure that there is an element of independent assessment of the quality of post-restoration monitoring and of the overall success of the scheme.

7.4 Summary

7.4.1 Mitigation and monitoring are summarised in Table 7 herewith.

Table 7. Mitigation and monitoring statement.

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
1. Provision of compliant end of life vessel decommissioning facilities.	Global	Much decommissioning of vessels takes place in uncontrolled conditions resulting in risks to human health and to the environment. Many British flagged ships have been dismantled in these conditions.	Mitigation is by design of provision of properly controlled compliant conditions for decommissioning vessels in the UK		Wholly beneficial, in accordance with aspirations of the House of Commons Committee report. Proper disposal of waste. 98% of vessel recycled.
2. Provision of fabrication facilities for wind turbines.	Global	Contribution to reduction of CO2 emissions			Strengthens UK ability in the sustainability energy market.
3. Choice of site at TERRC.	Teesmouth area, environmentally sensitive sites	Increased industrial activity. Risk of disturbance, pollution, contamination	See below for individual factors		See below for individual factors.
4. Construction and Marine related works					
4a. Risk of bank stability	Inter-tidal feeding grounds.	Potential loss of feeding grounds reducing habitat for SSSI and SPA birds	Full geotechnical survey and assessment so that stable channel banks have been designed and can be achieved Surface slope stability analysis and modelling. Deep failure mode slope stability analysis and modelling. Slope safety factors increased by adopting 1:3.5 slopes in the glacial drift and till layer. A 5m terrace incorporated into the dredging profile at the west of the holding basin.	Pre-dredging surveys and annual bathymetric monitoring will check for channel stability.	No loss of intertidal mud banks by slippage or erosion. Impact neutral
4a. Risk of bank stability (continued)		Potential loss of feeding grounds reducing habitat for SSSI and SPA birds	Geomorphology modelling and analysis to assess long term impacts. Shore defences required between Quay 11 and Power Station Cooling Water intake. Trapezoidal sheet piling training wall structure incorporated in the project design Incipient meander formation unrelated to dredging proposals but the deepening of the Seaton Channel by dredging reduces the water velocities and slows down the formation of impact on the SPA.	None required Pre-dredging surveys and annual bathymetric monitoring will check for channel stability.	Protected shore line between Quay 11 and Power Station Cooling Water intake. Long term neutral effect on the integrity of the SPA. Minor adverse in terms of attenuating erosion from the natural process of meander formation.

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
4b. Removal of inter-tidal mud banks	Bird feeding areas adjacent to channel.	Loss of inter-tidal mud banks will reduce food supply available to SPA birds. Removal of feeding area limited to 0.56ha of predominantly stony foreshore. This represents 0.29% of the baseline total inter-tidal area. The area is a relatively low food resource owing to its physical condition and supports a mean count of 5 birds.	A compensation scheme will be agreed with HBC in the form of a Section 106 agreement and implemented by Able to replace lost resources	The development of any new replacement habitat will be monitored as per Section 7 of the Conservation Management Plan	Impact minor adverse short term, neutral long term.
4c. Impact of sediment accretion on Seal Sands	Bird feeding areas on Seal Sands.	After the capital dredge is completed sediment accretion on Seal Sands will be reduced but the type of sediment will contain higher content of silts and clays.	No mitigation required in the medium term.	Monitoring will be undertaken to assess the SPA sedimentation during the capital dredge and bathymetry and inter-tidal slopes thereafter.	Short term minor adverse.
4c. Impact of sediment accretion on Seal Sands (continued)		Sediment budget deficit due to maintenance dredge arisings disposed of at sea. Sea level rise of 6mm per year assessed and in the long term sediment replenishment required to avoid loss of inter-tidal habitat.	Retention of maintenance dredge arisings by placing maintenance dredge materials on the north shore banks in sacrificial mounds. Specific methods to be agreed with HBC and EN.	Monitoring will be undertaken to assess the bathymetry and inter-tidal slopes before and after annual maintenance dredge.	Long term neutral impact.
4d. Tidal Propagation	Inter-tidal feeding areas.	Computer modelling by DNV concludes that tidal propagation will lead to a rise of 1mm in the tidal prism. On the south bank of the channel this computes to be a loss of 13m² along the 1.5km of dredging and less along the north shore.	A 1mm rise is de minimus as hydro-graphic surveys are accurate to only +/- 25mm. The SPA area is only defined in the citation to two decimal places which means that areas smaller than 100m² are not defined within the SPA. No mitigation required.		De minimus.

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
4e. Noise disturbance by Dredging and Piling	Feeding birds on the SPA and SSSI mudflats.	Disturbs feeding birds which fail to gather the food supplies they need.	No dredging or piling +/-2 hours either side of low tide during the months of November, December, January and February.	On completion of the dredging and piling construction works one full winter season survey over the months of October through March will be undertaken for sectors DT019/DT05/DT 018.	Neutral
	Seals rearing pups.	Mother and pups disturbed and become separated.	No dredging mid June to end of August +/-2 hours either side of low tide.	The INCA programme will be reviewed through TEAG.	Neutral
4f. Excessive disturbance of sediment during dredging.	Power Station cooling water system.	Management of risk factors associated with cooling water system in power station.	No dredging during spring tides (5.8m and over) in the vicinity of Quays 10 and 11.		Neutral
	Invertebrates and fish spawning season	Potential smothering of shallow water areas leading to reduced invertebrate and fish spawning and disturbance to spawning grounds.	No dredging during the critical spawning season months of February and March	Suspended solids in the channel water will be monitored during dredging	Neutral
4g. Sediment contamination within dock	Fish and marine life and invertebrates in intertidal mudflats	Capital dredge will cause partial resuspension of sediments	Pre-dredging sampling and testing shows contamination levels to be similar to that elsewhere in Tees River Estuary and on Seal Sands SPA.	Monitoring and testing complete.	Impact moderate/minor adverse, short-term, neutral long-term.
4.h. Sediment contamination within channel	Fish, marine life and invertebrates in intertidal mudflats	Capital and maintenance dredging will cause partial resuspension of sediments.	Pre-dredging sampling and testing shows contamination levels to be similar to those elsewhere in the Tees River Estuary and on Seal Sands SPA.	Pre-capital dredge, sampling and testing complete.	Impact moderate / minor adverse, short term, neutral long term
4.i. Site Flooding	TERRC site.	Risk to site staff. Dispersal of temporarily stored contaminated wastes.	Constructed works along channel frontage designed to 5m AOD. Contaminated waste storage areas to be bunded against flooding.		Risk of 1 in 200 year flooding eliminated.
4.j. Surface Water Drainage	TERRC site and Seaton Channel	Harmful to fish and marine life.	Purpose designed drainage system.	Monitoring as required by EA to comply with Discharge Consents.	Impact neutral.
4.k. Foul Water Drainage	Seaton Channel	Harmful to fish and marine life, algal growth on Seal Sands.	Primary treatment on site before discharge. Substantial volume dilution in channel.	Discharge monitored as required by EA to comply with Discharge Consent.	No significant impact

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
4.I. Bio-security	Regional	Introduction of alien species, parasites and pathogens which may harm native stocks of fish, invertebrates and crustaceans.	Inspection and Risk Assessment at the holding port for every ship bound for TERRC. Risk assessment results will inform transit decision, bio-security measures to be undertaken, and protocols.	Monitoring as per TERRC Compliance Plan.	No significant impact
5a. Visual and noise disturbance to Greenabella Marsh.	Common terns and other birds.	Disturbance causing species in the citation to move away.	Construction of shear acoustic and visual barrier. Noise levels on nearest part of SSSI reduced to ambient.	Noise monitoring on Greenabella Marsh to check predictions and to confirm barrier size.	Minor adverse long term.
5b Visual and noise disturbance to SPA	Birds on the SPA.	Feeding by protected birds interrupted.	Trials carried out in 2001 indicated no disturbance to birds. No mitigation needed. Access to the site will be restricted by the maintenance of site security.		Neutral long term.
6. Disturbance of ditches and wetland areas along north eastern margin of site.	Amphibians.	Disturbance if any amphibians or reptiles present.	Pre-construction survey to be carried out and replacement habitat to be developed.	Any habitat replacement to be monitored as per Conservation Management Plan	Short-term minor adverse. Long-term neutral.
7. Disturbance to neutral grassland on sand dumps at TERRC site.	Neutral grassland.	Vegetation destroyed.	Sand dumps will be incorporated in the proposed acoustic barrier and grass re-established there.	Any habitat replacement to be monitored as per Conservation Management Plan	Short-term minor adverse effect. Long-term neutral.
8. Delivery of vessels, etc to TERRC.	High seas, Teesmouth, Seaton Channel.	Vessels may cause spillages and leaks, causing maritime incident.	Vessel surveyed at point of departure, does not depart unless seaworthy to satisfaction of Coastguard agencies and insurers. Survey to include inventory of all waters to ensure TERRC has capacity to handle all materials safely before they arrive.	As per Compliance Plan	Risk of incident same as with any shipping. Teesport has an excellent safety record. However, in the case of a major incident the consequences could be serious, but not as serious as it would be the case with laden ships.
9. Greenhouse Gas Emissions	Atmosphere.	Climate change.	TERRC will minimise the use of oxygen / propane torches for metal cutting and will use shearing techniques. The recycling of 200,000 tonnes of steal means that 350,000 tonnes of iron ore can stay in the ground and not be processed in an energy demanding smelting process.		There will be some greenhouse gas emissions from plant and equipment on site and from traffic to and from the site. However these emissions are outweighed by savings generated by the reuse of steel and other recycled

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
					materials. Net effect long-term positive benefit.
10. Method of working	Seaton Channel and Seal Sands SPA.	Damage to wildlife by transfer of pollution to the SPA and SSSI. Impact on groundwater. Pollution of the channel when the dock is re-flooded.	All processes where there is a potential risk of loss or spillage of polluting or contaminating materials e.g. ship decommissioning will be undertaken within a confined dry dock. The dock floor will be cleaned out, checked to ensure it is impermeable, or made impermeable, tested and if approved by the EA, flooded to allow entry of a new cycle of ships.	As per Compliance Plan As per Compliance Plan	No adverse impact on the SPA or SSSI from harmful substances. No significant risk of pollution to groundwater, or to the channel water.
11. Dust emissions	Personnel on site, nearby environments.	Human health and contamination of ecologically sensitive areas.	No risk to local human population. SPA not at significant risk owing to distance. During dry windy periods with strong north or eastwards, dust management will be implemented involving restrictions on vehicle speeds and dampening roadways. PPE available for staff.	Dust monitoring will be undertaken at the site boundaries	No significant risk to human health, on site or off site. Ecologically designated areas not at risk.
12. Lighting	Birds on the SPA and SSI roosting sites.	Light spillage from the existing lighting towers was immeasurably low.	All lighting to be directional into the site. Progressive conversion to sodium lights.		Neutral.
13. Socio-economic Issues	Local and regional image.	Effect on image and environment affecting local economy. Effect on local economy by provision of 749 jobs.	Detailed Environmental Impact Assessment shows no significant adverse long-term effects to the environment.		Neutral impact on local image or economy. Long-term positive impact.
14. Traffic	Local and regional roads	Congestion and road safety	Existing consent levels for Traffic not exceeded. Commitment to Green Traffic Plan.		Reduced traffic
15. Airborne matter and Odour	Personnel on site, nearby environments.	Site staff and nearby human health.	To reduce air emissions decommissioning of ships will employ a combination of hot (burning methods) and cold techniques (shearing methods). PPE available for staff. Remediation of wastes will be in accord with the compliance plan as regulated by the EA under the waste management licence (WML).	As per Compliance Plan	No significant risk.
16. Landscape and visual impact	Receptor locations in surrounding landscape	Generally negligible or minor adverse. View from Greenabella Marsh and Teesmouth			Some short term moderate adverse (during construction) long term

FACTOR	"TARGET"	IMPACT	MITIGATION	MONITORING	OUTCOME
		Field Study Centre moderate adverse during construction, minor in long term. Minor adverse significance at Power Station Hide			negligible or minor adverse only

8 Bibliography

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Evans, P.R. and Ward R.M. 2001. Monitoring of the effects of operations and activities undertaken by TERRC on the use by birds of neighbouring parts of Seal Sands Special Protection Area. Dept of Biological Science, University of Durham.

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9 Appendix A: Example of the likely Reptile survey methodology

Four sites that have been identified as potential reptile habitat, on the basis of existing habitat, will be surveyed using a grid of reptile refugia, as recommended in the Herpetofauna Worker's Manual. The survey will require 6 survey visits, between April and early June.

Visit 1 - Setting out refugia

Sheets of corrugated iron and roofing felt approximately 0.5m² will be used as refugia.

Refugia sheets will be placed at the appropriate sites (criteria depending on habitat and construction) within the area of TERRC docks. Refuges will be positioned roughly in a grid over the sites, with refugia placed in likely basking spots (for example, sunny areas near to cover). Refuges will be kept away from footpaths as they make the reptiles vulnerable to disturbance from the public/employees. The sheets will be numbered and their locations marked on a map to ensure they are all checked and all removed at the end of the survey.

The survey will use a density of 25 – 50 refuges per hectare depending on the suitability of habitat and the presence of other features such as footpaths, fences etc. (The Froglife Advice Sheet 10 recommends using 5 – 10 refuges per hectare for general survey purposes).

3.1.1.1.1 Subsequent visits – Checking Refugia

Five subsequent visits will be made over approximately 6 weeks to check the refugia for the presence of reptiles. Reptiles found under refugia will be identified but not caught or handled and the refugia sheet number under which they were located will be noted.

The checks will be made during the period April to early June. Where possible survey visits will take place when weather conditions are most suitable (i.e. when the air temperature is low but there is intermittent or hazy sunshine and little/no wind, Herpetofauna Workers' Manual, 1988).

3.1.1.1.2 References

Our survey methodology was devised with reference to:

Froglife Advice Sheet 10
Herpetofauna Workers' Manual, 1998, JNCC

Figure 5.1. Plan of TERRC site indicating location of pre-construction survey areas for amphibians and reptiles

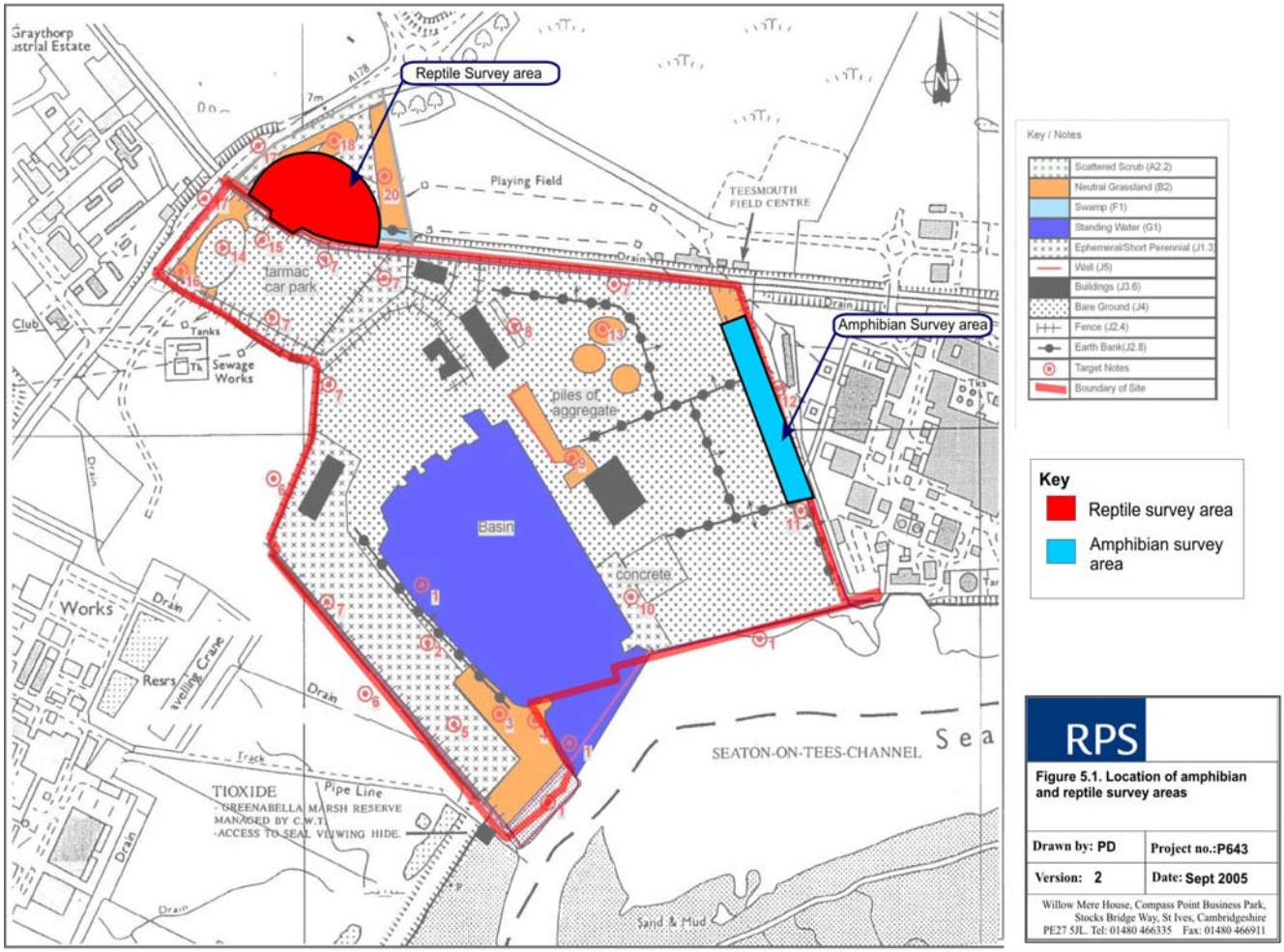


Figure 5.2. Plan of TERRC site indicating approximate extent of wetland habitat on eastern boundary following completion of construction works

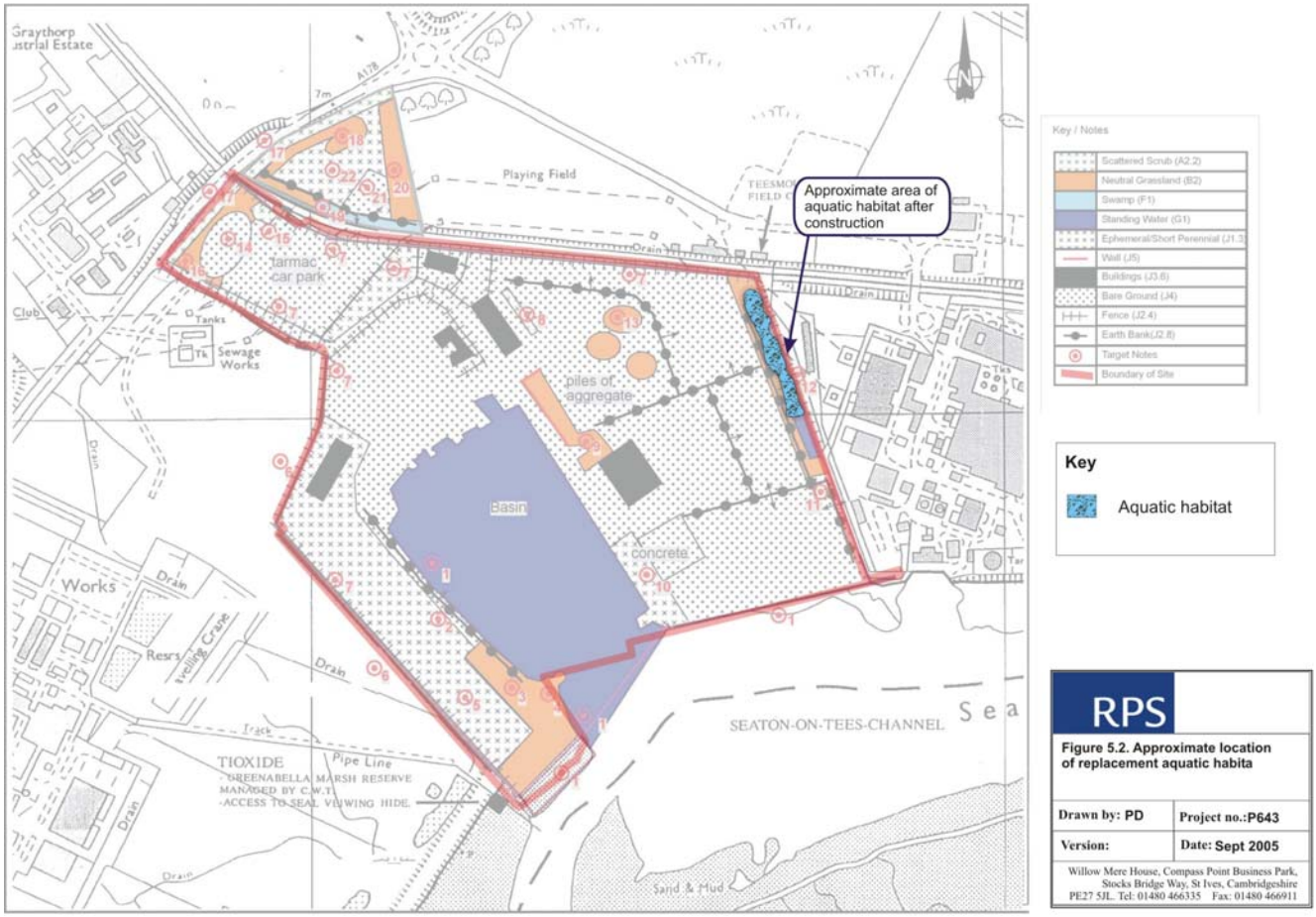
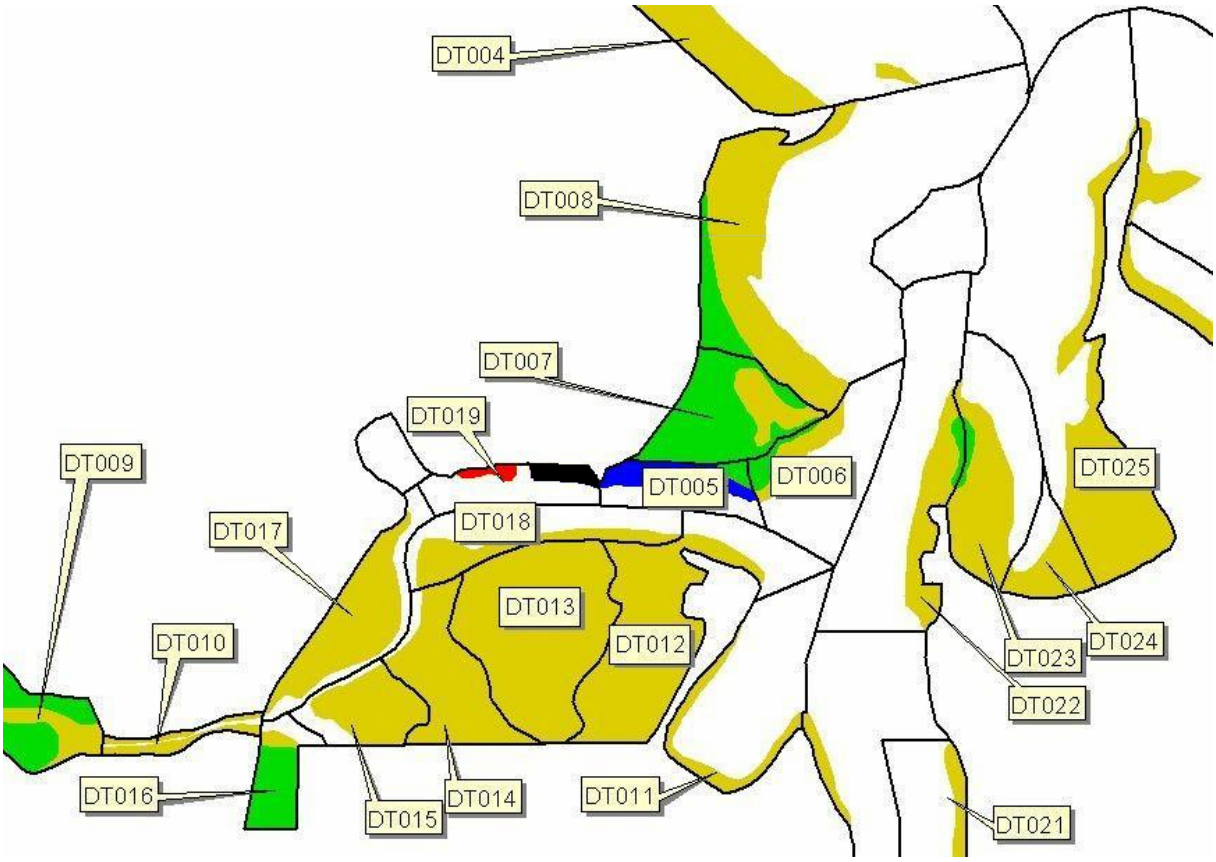


Figure 5.3. Plan of Sectors of Seal Sands used for WeBS counts in winter 1996-97 (Source: BTO), and 2005/2006 Teesmouth Bird Club surveys.



KEY TO 2005/2006 SURVEY AREAS	
DOCK NORTH	
POWER STATION	
SEATON SNOOK	

No:
Number: H/2007/0542
Applicant: Able UK Ltd Able House Billingham Reach Ind Estate Billingham TS23 1PX
Agent: Blackett, Hart and Pratt LLP, Westgate House, Faverdale, Darlington, DL3 0PZ
Date valid: 25 July 2007
Development: Hazardous Substance Consent to store various hazardous substances
Location: Able UK Ltd TERRC Facility Tees Road Graythorp Hartlepool Hartlepool

Introduction

1 The Hazardous Substance Consent controls are designed to regulate the presence of hazardous substances so they cannot be kept or used above specified quantities until the responsible authorities have had the opportunity to assess the risk of an accident and its consequences for people in the surrounding area and for the environment.

2 If consent is agreed this may be subject to a consultation zone being established within which proposals for future development will need to be considered by relevant statutory consultees prior to any grant of consent. This would allow potential effects on public safety and the environment to be considered.

3 The TERRC site lies adjacent to Tees Estuary and Cleveland Coast Special Protection Area (SPA). SPA's are amongst the highest classification of nature conservation designation and are of international significance. In its letter of 17 August 2007 Natural England indicates the site lies immediately adjacent to Seal Sands SSSI, much of which is also a component part of Teesmouth and Cleveland Coast Special Protection Area and Ramsar site. Consequently it was necessary for the Council as Hazardous Substances Authority to undertake an 'appropriate assessment' under the terms of the Habitat Regulations to determine whether the proposal would either alone or in combination with other plans and projects result in an adverse effect on the integrity of the SPA site. The 'appropriate assessment' is appended to this report. It concludes that providing appropriate precautionary steps are taken in storing the various hazardous substances an adverse effect on the SPA will not arise.

The Application

4 Hazardous Substances Consent is sought by Able UK to allow various materials to be stored at TERRC. Some of these materials consist of wastes, temporarily stored on the site prior to onward transmission for disposal at licensed sites. Other materials are to be kept on the site for use in industrial processes there or as fuels for site based activities. The proposals subject to this application are closely linked

to the ship decommissioning process, which is subject to the main application on the agenda.

5 The following maximum quantities (tonnes) of mainly waste materials are proposed for temporary storage on the site.

1. Asbestos – 2250
2. Waste mineral Oil – 5500
3. PCBs and PCNs – 5
4. Mercury and Compounds – 5
5. Lead acid batteries – 500
6. NiCad Batteries – 5
7. Anti-fouling paint – 10
8. Fuel oil – 3000 OK
9. Gas oil – 1500

6 The notes that accompany Table A of the application state that 33.5 tonnes of the combined 4500 tonnes of fuel and gas oil is to be stored in on-shore tanks for plant and machinery use. Other hazardous materials i.e. non wastes as listed below would be required to enable the cutting of ship hulls and other structures ,as fuel sources for on-site activities and other ancillary uses.

1 Acetylene – 0.5
2 Oxygen - 15
3 Propane – 3
4 Various maintenance and cleaning materials – 10
5 Various medicines – 10

7 The substance location plan submitted with the application will be displayed at the meeting. It indicates several storage locations within the site. In the northern part of the site there would be a storage area for the various oils and compressed gas cylinders (oxygen, propane and acetylene). The substances location plan states that the compressed gas storage compound is to contain cylinders to 50 litre capacity In the interests of safety it is proposed not to use these pressurised gasses within 5 metres of transport routes and other installations.

8 With respect to the waste fuel and gas oils (items 8 and 9 above), the substances location plan that accompanies the application states that the majority of the oils on the total site will be contained within ships received for recycling comprising both waste oils from engines and redundant fuel oils which are unsuitable for immediate reuse. These will be offloaded directly into road tankers for removal from site.

9 Adjacent to the eastern boundary of the dock would be the location for the mercury waste.

10 The location of temporary containers for asbestos and PCBs are shown within the proposed dry dock area. It is intended to keep such materials there for short term periods only prior to transfer for off site disposal or for appropriate storage elsewhere

on the TERRC site when the dock is due to be reflooded. The proposed site for the PCB and asbestos containers when not in the dry dock would be within bunded areas on the eastern side of the dock.

11 The various waste containers are to be bunded, as are the storage areas for oils used in site processes.

12 There is an existing hazardous waste storage building on the site that would be used to accommodate the lead-acid and NiCad batteries the various cleaning and maintenance chemicals and medicines.

13 Typical locations for steel contaminated with anti-fouling paint are shown within the dry dock and on the 'dirty', dismantling pad.

Publicity

14 This application was combined with the other three planning applications for the purpose of the consultation exercise. In the light of this few responses make specific reference to this application alone. In considering the comments made, where particular emphasis or reference has been made to hazardous waste, or dangers arising there from, this has been noted. As such, from the 1153 responses received a total of 1068 were viewed as having concerns over the hazardous waste application. All the grounds of concern are highlighted in the main report.

Consultations

15 The following consultation replies have been received:

Natural England – Confirms appropriate assessment is satisfactory and has been able to ascertain that the proposed development would not adversely affect the integrity of the European SPA/Ramsar site and would not be likely to cause damage and disturbance to the SSSI.

Environment Agency - No objections received. Various conditions required in order to ensure environmental protection.

Health and Safety Executive – Hazardous Substances Installation

No reason to advise against the granting of consent.
Conditions should be imposed to ensure range, quantity and location of substances is in accordance with application and that consent for toxic substances is limited to those named in the application. No consultation zone is recommended on this basis.

British Energy –

No objection subject to conditions to ensure that development does not to proceed until full details of the engineering operations and dredging works in the vicinity of the power station and the use of quays 10 and 11 have been deemed acceptable in

terms of safe operation of the power station. Also the use of propane to be restricted in certain parts of the site

Health and Safety Executive – Nuclear Installations Inspectorate –Confirmation of final comments awaited.

Police – No comments

Cleveland Emergency Planning Unit – No objection. If the application is successful it will be subject to stringent COMAH regulations requiring Able UK to provide a safety case that includes an on-site emergency response plan requiring approval of HSE.

Fire Brigade – No comments.

Greatham Parish Council – No objections

Northumbrian Water – No comments or objections

National Grid Transco –Raise no objections subject to all health and safety standards being met.

CE Electric – No objections

Northern Gas Networks – Verbally confirm no objections

PD Teesport – Raise no objections or comments

Stockton Borough Council – No comments

Redcar and Cleveland Borough Council – No comments

Head of Traffic & Transportation – No objections raised (note comments made referred to on main applications report)

Head of Public Protection - No objections raised (note comments made referred to on main applications report)

Engineering Consultancy – No objections raised (note comments made referred to on main applications report)

One NorthEast - Supportive of the proposals subject to satisfactory resolution of matters relating to environmental issues

Planning Policy

16 The following policies in the adopted Hartlepool Local Plan 2006 are relevant to the determination of this application:

DC02: states that the Borough Council will pay regard to the advice of the Environment Agency in considering proposals within the indicative floodplain areas including the need for a flood risk assessment. Flood mitigation measures may be necessary where development is approved. Where these are impractical and where the risk of flooding on the land or elsewhere is at a level to endanger life or property development will not be permitted.

GEP1: states that in determining planning applications the Borough Council will have due regard to the provisions of the Development Plan. Where appropriate development should be located on previously developed land within the limits to development and outside the green wedges. The policy also highlights the wide range of matters which will be taken into account as appropriate including appearance and relationship with surroundings, effects on amenity, highway safety, car parking, infrastructure, flood risk, trees, landscape features, wildlife and habitats, the historic environment, and the need for high standards of design and landscaping.

GEP4: states that development proposals will not be approved which would have a significant detrimental effect on the environment, on amenities of local residents, watercourses, wetlands, coastal waters, the aquifer or the water supply system or that would affect air quality or would constrain the development of neighbouring land.

IND9: reserves land in this area for developments which are potentially polluting or hazardous. These will be permitted where there is no significant detrimental effect on the environment or on designated nature conservation sites, on amentiy or on the development of neighbouring land. In these respects special regard will be had to advice received from the Health and safety Executive, HM Inspector of Pollution, the Environment Agency and English Nature as appropriate.

IND11: states that proposals for the introduction of hazardous substances will be permitted on sites identified in policy Ind9 for potentially polluting or hazardous substances subject to there being no significant increase in risk to people or significant adverse effect on designated nature conservation sites in the vicinity. In considering such proposals at other locations the Borough Council will also need to be satified that they will not inhibit the full opportunities for development of nearby sites.

Planning Considerations

17 The main considerations in this case are whether the proposed storage of hazardous substances on the site in connection with the proposed project would have adverse effects on health and safety and the environment.

18 Policy Ind9 of the adopted Local Plan confirms that this is an appropriate location for developments which are potentially polluting or hazardous subject to no significant adverse environmental effects.

19 It is important to note that there are no objections to this application from key statutory regulators, the Health and Safety Executive (Hazardous Installation Directorate) and Environment Agency. The HSE confirm that there would be no reason on safety grounds to refuse the application. Most significantly they have confirmed that development if approved would not attract a health and safety consultation zone subject to conditions governing the range and quantity of substances. British Energy are satisfied that planning permission can be granted for the development subject to conditions to control the detailed engineering and dredging works in the vicinity of the power station, the proposed use of quays 10 and 11 and to ensure that the use of propane is restricted to certain parts of the site. Appropriate conditions are recommended in relation to the main applications. The final comments of the Health and Safety Executive (Nuclear Installations Inspectorate) are awaited.

20 The Environment Agency has raised no objection to the application subject to conditions. The conditions in question are dealt with in relation to the report for the main application. The proposals are also subject to control under the COMAH (Control of Major Accident Hazards) legislation and waste management licensing. These controls are enforced by the Environment Agency and Health and Safety Executive and will incorporate appropriate controls over the risk of pollution incidents occurring. The storage and transfer of hazardous materials on the site would be subject to control through the Environment Agency's waste management protocols. In the event that an accidental spillage of material were to occur it would be dealt with under the Hazard Materials Spillage and Clean Up Plan under the supervision of the Environment Agency. The potential for this has been assessed and addressed within the Environmental Statement accompanying the main application.

21 The Local Planning Authority has completed an appropriate assessment of the proposals and has concluded that the proposals to store hazardous substances on the site will not result in an adverse impact on the integrity of the SPA. Natural England has confirmed that this assessment is satisfactory.

Flooding/release of contamination

22 The methods for ensuring that water either within the dock or the wider Seaton Channel area does not become exposed to unacceptable levels of contamination is given consideration within the report on the main application which deals with drainage and remediation strategies for the dry dock.

23 In order to safeguard against potential pollution risk from flooding, substances that are potentially dangerous for the environment would be stored in bunded locations.

Other matters

24 The impact of the proposed development in terms of traffic operation and effect on the image of the town are given consideration in the report to the Committee on the main application.

25 Each application for hazardous substances consent should be considered on its own merits by the appropriate regulatory authorities taking into consideration the in-combination effect of other hazardous substances already present on the site. Precedent is not therefore considered to be an issue.

26 The question of whether the company should be applying for a PPC (Pollution Prevention Control) licence is not a material consideration in this case. The PPC regime is administered by the Environmental Agency and as such the decision as to whether the PPC regime is appropriate in this case rests with the Environment Agency.

RECOMMENDATION – APPROVE subject to the following conditions and subject to the final views of the Health and Safety Executive (Nuclear Installations Inspectorate):

1. Unless otherwise agreed with the Local Planning Authority, the substances subject to this application shall be stored and where relevant used only in complete accordance with the details stated on Drawing TC-20013 G application documentation dated 16 July 2007.
   In the interests of environmental protection.

2. Outside the wet/dry dock all substances that are destined for waste disposal off site or that contain oil shall only be stored in areas which are surrounded by protective bunds to a minimum height of 5.2 metres AOD, details of which shall be first agreed in writing by the Local Planning Authority.
   In order to safeguard against flood risk.

3. Hazardous Substances Consent hereby granted is limited to those substances named and their maximum quantities stated within Table A of the application dated 16 July 2007 and those substances shall be stored in accordance with the details provided on Drawing TC-20013 G: Substances Location Plan.
   For the avoidance of doubt.

4. No ship(s)[1] shall be used as a vessel for the storage of wastes including oils from other ships.
   In the interests of environmental protection.

5. Unless otherwise agreed with the Local Planning Authority there shall be no operations undertaken on the site which involve the use of propane within 5 metres of the power station security fence.
   Reason: In the interests of safety.

[1] The use of the term 'ship(s)' within the conditions described shall be taken to mean all ships, vessels and other craft as described in more detail in the Environmental Statement.

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE CONSERVATION (NATURAL HABITATS & C.) REGULATIONS, 1994	

PART A: The Proposal

1. Type of permission: Hazardous Substances Consent	**2. Application reference:** H/2007/0542	**3. National Grid reference:** 5231 2679	**'P' Number(s):**
4. Map of Application site and Peat Permission reference(s) Map Attached – **No**	**5. Brief description of proposal:** Hazardous Substance Consent to store various hazardous substances on the site		
6. European site name(s):	Teesmouth and Cleveland Coast SPA/Ramsar		

7. List of interest features:

SPA Features:

A. Supports populations of European importance of the following species, listed on Annex 1 of the EU Birds Directive**: Little Tern**, 37 pairs representing at least 1.5% of the breeding population in Great Britain; **Sandwich Tern**, 2,190 individuals representing at least 5.2% of the population in Great Britain on passage migration.

B. Supports populations of European importance of the following migratory species: **Ringed Plover**, 634 individuals on passage migration, representing at least 1.3% of the Europe/Northern Africa wintering population; **Knot**, 4,190 individuals representing at least 1.2% of the wintering Northeastern Canada/Greenland/Iceland & Northwestern Europe population; **Redshank**, 1,648 individuals representing at least 1.1% of the wintering Eastern Atlantic population.

C. Over winter, regularly supports 21,406 individual waterfowl including Sanderling, Lapwing, Shelduck Cormorant, Redshank & Knot.

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE

CONSERVATION (NATURAL HABITATS & C.) (Continued)

PART B: Identification of effects being considered and relevant features affected			
Significant effect being considered (attribute affected)	**Affected qualifying feature(s)**	**Favourable condition target(s) for relevant feature(s) based on conservation objectives set for SPA/ Ramsar**	**Contribution of attribute(s) to site integrity (ecological structure and functioning of site)**
Inundation of site in flood scenario	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Intertidal mudflat provides most of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl.
Rupturing of storage vessels and containers during their transfer within the site	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Intertidal mudflat provides most of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl.
Various accident scenarios detailed in the Environment Agency's appropriate assessment in relation to a COMAH application for the site (see appendix 1 to this document)	Assemblage of over 20,000 waterfowl in the winter Populations of European importance of migratory species.	Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular: Rocky shores; intertidal sandflat and mudflat; saltmarsh.	Intertidal mudflat provides most of the feeding habitat for regularly occurring migratory bird species and wintering waterfowl.

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE

CONSERVATION (NATURAL HABITATS & C.) (Continued)

PART C: Assessment				
Significant effect being considered (attribute affected)	**Adverse Effect of proposal alone on attribute and/or feature and in relation to conservation objective for the feature**	**Adverse Effect of proposal in combination with other plans or projects, on attribute and /or feature**	**Can adverse affects be avoided?**	**Adverse affect on integrity; long term, short term. Yes, no or uncertain?**
Inundation of site in flood scenario	Site flooding might cause contaminated materials to be transferred out of the site into the Seaton Channel and onto the SPA	It is considered that there would be no in-combination effect that would exacerbate this effect	Yes, through mitigation measures ensuring that the site fronting the Seaton Channel is constructed to a minimum height of 5.2m A.O.D. and appropriate bunding for hazardous waste storage areas is incorporated. This will protect the site against 1:200 year flood risk	No

Rupturing of storage vessels and containers during their transfer within the site	Contaminants may be transferred by air or water out of the site into the Seaton Channel and onto the SPA	It is considered that there would be no in-combination effect that would exacerbate this effect	Yes, through the implementation of the site compliance plan in order to minimise the risk of an accident of this nature occurring	No
Various accident scenarios detailed in the Environment Agency's appropriate assessment in relation to a COMAH application for the site (see appendix 1 to this document)	See appendix 1 to this document	It is considered that there would be no in-combination effect that would exacerbate this effect. See appendix 1 to this document	Yes. See appendix 1 to this document	No

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE

CONSERVATION (NATURAL HABITATS & C.) (Continued)

PART D: Council's Conclusion

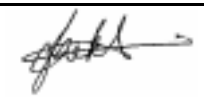
CAN IT BE ASCERTAINED THAT THE PLAN OR PROJECT WILL NOT ADVERSELY AFFECT THE INTEGRITY OF THE EUROPEAN SITE(S)? YES/NO
(Please provide explanation for answer given and attach any relevant supporting information)
Yes.

All potential effects, identified following advice from statutory consultees, which might result from the proposal and which might have a significant adverse effect on the SPA, have been considered in Parts B & C of this assessment.

Although certain of the effects being considered might have the potential to have a significant adverse effect prior to mitigation, appropriate protective and risk control measures will be implemented to avoid any adverse effects.

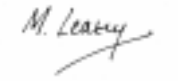
It is considered, for each of the potential effects, that there would be no adverse effect in-combination with other plans and proposals. There is a possibility that two of the potential effects -, inundation of the site in a flood scenario and rupturing of storage vessels and containers during their transfer within the site - would have potential for an in-combination effect prior to mitigation. However, the probability of these two effects occurring simultaneously is extremely low and, given the mitigation in place for each of these effects individually, it is concluded that there would be no adverse effect.

After consideration of the information supplied by the applicant it is considered that the project will not adversely affect the integrity of the European site.

Name of Assessing Officer: Ian Bond	**Name of Supervising Officer:** Roy Merrett
Job Title: Ecologist	**Job Title:** Principal Planning Officer
Signed: 	**Signed:** 
Date: 20 September 2007	**Date:** 20 September 2007

APPROPRIATE ASSESSMENT OF A PROPOSAL LIKELY TO HAVE A SIGNIFICANT EFFECT ON A EUROPEAN SITE

CONSERVATION (NATURAL HABITATS & C.) (Continued)

PART E: Consultation with English Nature on Part D	
English Nature comment on conclusion: I agree with the above assessment.	
Name of EN Officer: Mike Leakey	**Job Title: Team Leader, East Durham & Tees Valley**
Signed: 	**Date: 21 September 2007**

APPENDIX 7C
Proforma Habitats Consultation for COMAH Establishments

ENVIRONMENT AGENCY

Environment Agency Record of Appropriate Assessment on a European Site(s) from a COMAH top tier establishment

The Agency has identified that the zone of consequence of a major accident at a COMAH top tier establishment may include a European Site(s) as detailed below. The Agency's view is COMAH establishments will adversely affect the integrity of a European site only if the measures taken to prevent a 'Major Accident to the Environment' (MATTE) are found to be seriously deficient under COMAH Regulations.

PART A

To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW

1. Agency reference no:	A024160/00/NEE
2. National Grid reference:	NZ523 266
3. Establishment:	ABLE UK Teesside Environmental Reclamation and Recycling Centre (TERRC).
4. Brief description of establishment:	TERRC was originally constructed as a ship building facility and in 1973 modifications were made to allow construction of major offshore structures, which included the use of a dry dock. In the mid 1980's the dock gates became inoperative / detached. Able will use the facility for the construction, repair, refurbishment and decommissioning of a range of vessels and marine structures and other craft under dry dock conditions. Dry dock conditions will be afforded by placement of a bund / cofferdam initially and eventually by installation of dry dock gates. The site covers 48.4 hectares of which 10hectares are dry / wet dock area. There are a number of SSSIs in the vicinity of the TERRC facility: Cowpen Marsh, Redcar Rocks, Seal Sands, Seaton Dunes and Common, South Gare and Coatham Sands, Tees and Hartlepool Foreshore and Wetlands. In addition there is the Teesmouth and Cleveland Coast SPA and Ramsar site. The main hazardous materials on site are Asbestos, marine waste oil and PCBs (currently only in "closed" operations, wire and cable coatings). Other materials: fuel oil, gas oil, hydraulic oil and engine oil are stored on site for use by the operator. Various quantities of liquid oxygen and liquid propane gas (LPG) may be used on site depending upon operational requirements.

5. Relevant MATTE scenarios:	Due to the type of establishment and the limited materials present coupled with the activities carried out, there are only a few initiation events that could lead to possible major accident scenarios. The events listed below were evaluated by the operator for their potential to cause a major accident : *1. Failure mechanism of liquid oxygen vessel* *2. Liquid oxygen failure scenarios* *3. Semi-confined vapour cloud explosion* *4. Asbestos fibre release* *5. Release of polychlorinated biphenyl's (PCBs)* *6. Storage tank bund fire* *7. Storage tank fire* The evaluation concluded that none of the above possible major accident scenarios have the potential to cause a MATTE. However for ease of understanding and comparison of possible impacts, section 8 covers the seven events listed above.
6. European Sites within the consequence range of relevant MATTE scenarios:	For emissions, parts of the Teesmouth and Cleveland Coast SPA comprising of intertidal sand and mud flats, rocky shore, saltmarsh, fresh water marsh and sand dunes. Also the Teesmouth and Cleveland Coast Ramsar site.

7. List(s) of interest features and conservation objectives	Birds of estuarine habitats: Article 4.1 Little Tern , Sandwich Tern Article 4.2 Knot, Redshank The site is also designated a Ramsar site because it is regularly used by over 20,000 waterfowl and by 1% or more of the individuals in a population of waterbirds (Knot *Calidris canutus*, Redshank *Tringa totanus*, Little tern *Sterna albifrons*, Sandwich tern *Sterna sandvicensis*.) Conservation objectives are, subject to natural change, to maintain in favourable condition the habitats for the internationally important populations of Little Tern, Sandwich Tern, Knot and Redshank, and the internationally important assemblage of waterbirds, with particular reference to: • Rocky shores • Intertidal sand and mudflats • Sand dunes • Saltmarsh • Freshwater marsh • Coastal waters

8. What are the potential impacts of relevant MATTE scenarios on the interest features

MATTE scenarios:	Predicted impact on interest features/conservation objectives:	Relevant harm criteria/assumptions
Failure mechanism of liquid oxygen vessel	Highly unlikely to cause any bird death on site and highly unlikely to be significant off-site?	Asphyxiation. Area around containers freely vented therefore concentration could not build up to cause asphyxiation
Liquid oxygen failure scenarios	Highly unlikely to cause any bird death on site and highly unlikely to be significant off-site	Asphyxiation. Area around containers freely vented therefore concentration could not build up to cause asphyxiation

Semi-confined vapour cloud explosion	Possible bird death close to source due to heat flux and or overpressure.	Charge strength of 7 and volumes from 250-1000m3 considered. The distance to 1psi overpressure ranges from 86-136m for volumes of 250-1000m3 respectively. Distances well within installation boundary.
Storage tank bund fire	Possible bird death close to source Highly unlikely to be significant off-site.	Max flame height calculated at 114m and distance of radiation level of 12.5kW/m2 calculated at 61m (109m for radiation level of 6.3kW/m2) for the largest pool area fire of 10000m2. Distances well within installation boundary
Asbestos fibre release	Short term: Unlikely to cause bird death both on and off site. Long term: There is potential disruption to the food chain There is the potential for Fibrosis following inhalation of asbestos. The result being the potential loss of bird life, although it would be extremely difficult to predict the scale of impact due to the time scales involved.	Significant explosion required onboard a vessel such that a breach of the structural steel compartment as well as the structural steel section of the ship required (see preventative measures). Effects on clams observed at 102fibres/litre for 30day exposure, effect on coho salmon observed at 106fibres/litre over 86 days. Effects on mammals will depend on type of asbestos, concentration, and fibre dimensions. (I) Feeding studies in animals exposed to high doses of asbestos have not detected any evidence of adverse toxic effects[1,2] (ii) Birth defects were not noted in the offspring of animals exposed to asbestos in the diet during pregnancy[1]. (ii) No effects on fertility were observed in animals exposed to asbestos in the diet during breeding, pregnancy and lactation[1] (iv) A series of large scale lifetime feeding studies in animals reported that intermediate range asbestos fibres increased the incidence of a benign tumour of the large intestine in male rats, while short range asbestos fibres showed no significant increase in tumour incidence[1,3]
Release of polychlorinated biphenyl's (PCBs)	Unlikely to cause bird death on or offsite	PCBs located in cable / wire coatings.
Storage tank fire	Possible bird death close to source Highly unlikely to be significant off-site.	Similar scenario to the bund fire

<u>Common Assumptions/Criteria</u>

- Oxygen and LPG – releases to air that are not ignited will disperse. Unlikely to achieve concentrations that may cause asphyxiation without igniting first.

Agency conclusions on whether "all necessary measures" have been taken and whether the residual risk to the relevant European Sites is acceptable:

The predicted impacts set out in Section 8 assume that no prevention or mitigation measures are in place.

Prevention Measures
The site has a number of measures to prevent minor accidents and their escalation into major accidents. These include:

- Maintenance systems
- Hazard and risk assessments carried out at key stages of the project
- Management of change procedure
- Use of cold cutting wherever possible
- Standard industrial practices used for decommissioning work
- Cofferdam in place before any decommissioning work carried out
- Appropriate bunding for liquids contained in bulk tanks
- Use of approved separation distances to various structures / activities when liquid oxygen, LPG containers brought onto site
- Removal of asbestos and cables will be carried out before dismantling starts i.e. no flammable gases present or hot work will be carried out during asbestos / cable removal onboard the vessels.

Mitigation Measures
The following measures will contribute to reducing the impact of a major accident:

- On site and off site emergency plan
- PD Teesport to deal with large spillages of oil under their oil pollution contingency plan

Conclusion
The safety report demonstrates that all necessary measures have been taken to prevent major accidents and to limit their consequences to people and the environment. The residual risk posed by the establishment to the relevant European Sites is acceptable

The CA is satisfied that by implementing COMAH any mechanism for an adverse effect, either alone or in combination with other plans or projects, on the relevant European Sites has been removed.

The CA believes that the Operator has demonstrated that there are no serious deficiencies in the measures they take to prevent and limit the consequences of major accidents to the environment (MATTE). The CA view is that the residual risk to the SPA is deemed to be as low as reasonably practical (ALARP) but this will be reviewed as necessary in the light of any new information provided by the Operator.

References:
1.Agency for toxic substances and disease registry (ATSDR). Toxicological profile for asbestos (Draft) US. Public Health Service, US Department of Health and Human Services, Atlanta, GA 1989
2. E.J.Calabrese and E.M. Kenyon. Air Toxics and Risk Assessment. Lewis Publishers, Chelsea, MI 1991.
3. US Environmental Protection Agency. Integrated Risk Information System (IRIS) on Asbestos. Environmental Criteria and Assessment Office, Office of Health and Environmental Assessment, Office of Research and Development, Cincinnati, OH 1993.

Name of EA Officer:	**G McGibbon**	**Date: 25th June 2006**

EN/CCW comment on Agency conclusions	**We agree with the Agency's conclusion that with the described prevention and mitigation measures in place the residual risk to the European site will be acceptable.** **As a minor point, while potential asbestos impacts on molluscs, fish and mammals are referred to in Section 8, there is no reference here to potential impacts on birds. This is rather unfortunate, givcen that the SPA/Ramsar site is designated for its waterbird interest.**	
Name of EN/CCW Officer:	**Mike Leakey**	**Date: 6 July 2006**
NOTE – This proforma should be completed before the Safety Report Assessment Outcome meeting. It should form part of the Agency file records.		