

6 SCOPING POTENTIAL ENVIRONMENTAL IMPACTS

6.1 INTRODUCTION

A range of activities associated with the proposed project may affect the environment. These include routine events and accidental and emergency situations. This section identifies and ranks the environmental and socio-economic risks that could arise directly or indirectly from routine, accidental and emergency situations during the lifetime of the Demonstrator Project. It includes those concerns expressed, and issues raised, by stakeholders during consultation, and presents the outcome as a matrix which identifies the main potential environmental risks associated with the Beatrice Wind Farm Demonstrator Project.

6.2 METHOD USED TO SCOPE POTENTIAL IMPACTS

6.2.1 METHOD

In the light of the findings of the scoping report, and the information and feedback received during the consultation exercise, Talisman identified a range of activities and operations that could affect one or more environmental receptors. The potential significance of each of these potential environmental risks was assessed and assigned to one of three defined risk categories (Table 6.1).

6.2.2 ENVIRONMENTAL RISK CATEGORIES

In line with DTI guidelines, Talisman has developed a method for categorising each of the environmental risks resulting from the activities that would be carried out during the project. The three categories, "highly significant", "significant" and "not significant" are defined in Table 6.1.

Table 6.1 Definition of significance categories used in the risk assessment.

HIGHLY SIGNIFICANT	
<ul style="list-style-type: none"> • substantial environmental, socio-economic and technical risks which cannot be reduced with the resources available to the project • major gaps and uncertainties in the data • serious concerns from consultees which cannot be resolved • non-compliance with environmental legislation and company policy 	
SIGNIFICANT	
<ul style="list-style-type: none"> • discernible environmental and socio-economic risks which are well understood but require further investigation to establish the causes, consequences and/or provisions for risk management • risk-reduction measures available which generally have a history of successful use and acceptance • environmental impact generally localised, and readily assimilated by the receiving environment. Impact would not compromise the integrity, viability, conservation status, commercial use or social amenity of particular habitats or species 	

SIGNIFICANT <i>continued</i>	
	<ul style="list-style-type: none"> • socio-economic impacts which represent inconvenience to third parties rather than loss or degradation of socio-economic or cultural assets • evidence of adequate contingency planning and response capabilities for hydrocarbon spills or other emergencies • concerns expressed by consultees which can be adequately resolved
NOT SIGNIFICANT	
	<ul style="list-style-type: none"> • no or negligible environmental, socio-economic or technical risks • risk-reduction measures not required, or are industry standard • no concerns from consultees
NOT APPLICABLE	
	<ul style="list-style-type: none"> • this activity will not affect this environmental receptor

6.3 RESULTS OF THE RISK ASSESSMENT

The results of the risk assessment are shown in Tables 6.3 to 6.10. The left-hand columns in the tables identify the aspects of the project that would cause, or have the potential to cause, impacts to sensitive receptors. These environmental aspects include routine, abnormal and emergency events during the lifetime of the project. The remaining columns of the tables identify and categorise the significance of the environmental risk to the sensitive physical and chemical, biological and socio-economic receptors. The two right-hand columns of the tables present the overall assessment of significance (i.e. the highest assessed risk) and the sections of the report which give a detailed justification of the assessment made.

6.4 SUMMARY OF THE RISK ASSESSMENT

The results of the assessment are summarised in Table 6.2. In total some 209 potential environmental risks were identified for the lifetime of the project. No risk was categorised as being “highly significant”; 30 risks were judged to be “significant”; and 179 risks to be “not significant”.

Table 6.2 Summary of environmental risk assessment.

Stage and activity of Demonstrator Project	Category of risk			
	Not Significant		Significant	
	Routine	Accidental	Routine	Accidental
Assembly onshore	7	0	0	0
Construction and installation offshore	39	24	10	0
Operation of WTGs offshore	37	18	18	0
Decommissioning of WTGs and umbilicals	41	13	2	0

Table 6.5 Risk assessment for the operation of the WTGs at the offshore location.

	Physical and Chemical Environment					Biological Environment					Human Environment					Visual		OVERALL SIGNIFICANCE	JUSTIFICATION SECTION REFERENCE				
	Sediment characteristics	Water quality	Air quality (local)	Trans-boundary issues	Cumulative impacts	Sediment biology (benthos)	Water column (plankton)	Finfish and shellfish	Seabirds	Sea mammals	Conservation sites	Commercial fishing	Shipping	Military operations	Oil & gas operations	Onshore communities	Aviation & telecommunication			Other users	Stakeholder concerns	Seascape	Landscape
Demonstrator Operation																							
Physical presence of substructure located on the seabed	■	■			■	■													■		■	8.1	
Transmission of electricity by subsea cables								■			■									■		■	8.2
Physical presence of WTGs in relation to finfish and shellfish							■				■									■		■	8.3
Creation of underwater noise by operating WTGs					■		■			■	■									■		■	9.0
Physical presence and operation of WTGs in relation to birds					■			■		■										■		■	10.0
Visual effects of physical presence and operation of WTGs					■												■			■	■	■	11.0
Physical presence of WTGs in relation to shipping													■	■	■				■	■		■	12.1
Physical presence of WTGs in relation to commercial fishing					■						■									■		■	12.2
Physical presence of WTGs in relation to aviation and telecommunications														■	■		■			■		■	12.3
Maintenance Operations																							
Physical presence of maintenance vessels		■								■		■	■		■							■	6.9
Gaseous emissions from power generation on vessels		■		■																		■	6.8
Permitted discharge of treated bilge from vessels		■					■	■		■												■	6.8
Sewage and galley waste discharged from vessels		■					■	■		■												■	6.8
Emergency helicopter visits									■	■												■	6.9
Accidental Events																							
Dropped objects						■	■				■											■	6.8
Fuel spill at site as a result of vessel collision	■	■			■	■	■	■	■	■	■	■			■	■		■	■			■	6.8

Table 6.6 Risk assessment for the decommissioning of the WTGs.

	Physical and Chemical Environment					Biological Environment					Human Environment					Visual		OVERALL SIGNIFICANCE	JUSTIFICATION SECTION REFERENCE				
	Sediment characteristics	Water quality	Air quality (local)	Trans-boundary issues	Cumulative impacts	Sediment biology (benthos)	Water column (plankton)	Finfish and shellfish	Seabirds	Sea mammals	Conservation sites	Commercial fishing	Shipping	Military operations	Oil & gas operations	Onshore communities	Aviation & telecommunication			Other users	Stakeholder concerns	Seascape	Landscape
Vessel Operations																							
Noise from vessels																						95	
Gaseous emissions from power generation on vessels																						6.8	
Permitted discharge of treated bilge from vessels																						6.8	
Sewage and galley waste discharged from vessels																						6.8	
Decommissioning																							
Removal of tower and nacelle using HLV																						6.10	
Cutting pile and removal of substructure																						6.10	
Exposing and removal of umbilicals																						6.10	
Removal of concrete mattresses																						6.10	
Transportation of material to shore site(s)																						6.10	
Onshore recycle/disposal of material																						6.10	
Accidental Events																							
Dropped objects																						6.8	
Fuel spill at site as a result of vessel collision																						6.8	

6.5 JUSTIFICATION OF “NOT SIGNIFICANT” RISKS

For the risks that were categorised as being “not significant”, Tables 6.7 to 6.10 provide the justification for the assessment made by the Talisman, and for excluding these impacts and risks from further investigation in the EIA. Wherever possible, risks of similar nature have been grouped to avoid repetition.

Table 6.7 Assembly of the WTGs at the onshore location: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Transportation by cargo vessel.	Potential impedence to fishing and navigation.	Normal cargo vessels will be used, and they will be operated using good seamanship. It is not anticipated that they will present unusual berthing or off-loading problems in the port.	Cargo vessel movements would be no different to other cargo vessel operations in and around assembly location. Movements of vessels bringing in the material and taking out the assembled units will not interfere with any fishing vessels at the selected port, and will be planned and managed under the existing harbour management system. Any small inconvenience to other users of the facilities (for example during berthing operations) would be very localised and temporary.
Assembly operations onshore.	Deterioration of local air quality caused by use of machinery, emission of combustion gases, or the release of dust particles into the atmosphere. Inconvenience or nuisance to local residents caused by noise, lights or vehicular traffic.	Although the site has not yet been chosen, it will be an existing port facility with the capacity to handle the WTG components and their assembly. The port and its environs will, therefore, be used to a certain amount of industrial activity from cargo vessels, and associated shore-based operations. The port will be selected after a rigorous review by Talisman. Onshore assembly will be carried out to an agreed Environmental Management Plan. A local Oil Spill Contingency Plan will be in place. Most assembly activities will be carried out during daylight, and during normal working hours. Areas for laydown and assembly will be agreed with site and will be selected to ensure minimal interference with other users.	Emissions and releases to atmosphere would be very similar in nature to those that might normally occur at the site. Maximum concentrations would occur in the immediate vicinity of emissions, and would be well below any air quality objectives. There would be no discernable impact to the onshore location. Use of additional machinery, generators and cranes will be limited to a relatively short period of assembly. The period of time that the assembled WTGs will be an obvious feature in the landscape will be relatively short.

Table 6.8 Construction and installation of the WTGs at the offshore location: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Construction and Installation			
Physical presence of vessels.	Potential interference with fishing activity. Potential impedance to navigation.	Vessels will work within a well-defined, relatively small areas for a total period of two months in spring and summer. Mariners will be notified of the presence of vessels associated with the project and will be advised of the potential hazards to navigation.	Inconvenience to other users of the sea would be very localised and temporary, and caused by a small number of vessels. There will be appropriate communication/notification to vessels in the vicinity, immediately prior to operations commencing. Temporary loss of a very small area of fishing grounds during construction and installation; the impact on commercial fishing would be negligible.
Deployment of HLV anchors.	Anchor mounds may form as a result of using the HLV for the installation of the WTGs. Possibility of anchors interfering with existing oil and gas infrastructure and with fishing operations. Physical disturbance of seabed sediments and benthic fauna in localised areas around anchors (chain and wires) during positioning and removal. Physical disturbance to fish spawning grounds.	Anchors will be carefully deployed by anchor-handling tugs and their locations will be planned and selected to avoid existing infrastructure. Anchors will be removed from the seabed after use. A dedicated guard vessel will be on location to ensure that traffic is aware of the presence of the HLV anchors. Extent of anchor pattern and duration of operations will be notified to sea users.	Sediments at Smith Bank are sandy, so it is unlikely that large anchor mounds would be created. Any impact to the benthic community from anchoring and physical disturbance to the sediment would be very localised and short-term. After anchors are removed, sediments will be re-colonised from undisturbed benthic communities immediately adjacent to the anchor sites. The temporary unavailability of a very small area of potential fishing grounds would have a negligible impact on commercial fisheries.

Table 6.8 (cont) Construction and installation of the WTGs at the offshore location: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Construction and Installation			
Gaseous emissions from power generation on vessels.	Deterioration in local air quality around exhaust outlets on vessels. Contribution to global processes such as global warming and acid rain deposition (cumulative and trans-boundary impacts).	Atmospheric emissions from the vessels are inevitable but would be managed through use of well-maintained equipment, and burning low-sulphur diesel fuel in line with the requirements of MARPOL. Operations would be carefully planned and managed so as to minimise numbers of vessels and durations of offshore operations.	Short-term deterioration of local air quality within a few metres of the point of emission. Rapid dispersion and dilution of the emissions in offshore conditions. Overall very small scale contributor to global warming and to cumulative affects such as acid rain. No sensitive receptors in the area.
Permitted discharge of treated bilge from vessels.	Highly localised and transient deterioration in seawater quality around the discharge point, and the potential for formation of a small oil slick.	Operations would be carefully planned and managed so as to minimise numbers of vessels and durations of offshore operations. Compliance with MARPOL which requires: <ul style="list-style-type: none"> • <i>oil-water separation and filtration equipment</i> • <i>monitoring and discharge to ensure oil concentration is compliant with current limits</i> • <i>retention of the bulk oil fraction after separation for recycling or incineration onshore</i> • <i>UK or International Pollution Prevention Certificate for vessel drainage systems.</i> 	The permitted intermittent discharge of low concentrations of hydrocarbons in bilge water would be dispersed and broken down rapidly in the offshore environment. A slick should not form at the permitted concentration. Any possible effects on water quality and marine fauna inhabiting the upper water column (plankton and pelagic fish) will be confined to the immediate vicinity of the discharge pipe. Duration of vessels activity will be less than two months in total.

Table 6.8 (cont) Construction and installation of the WTGs at the offshore location: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Construction and Installation			
Sewage and galley waste discharged from vessels.	Localised increase BOD (Biological Oxygen Demand) around the point of discharge (caused by bacterial degradation of the sewage). Input of organic nutrients results in localised increase in productivity in fish, plankton and micro-organisms.	Operations would be carefully planned and managed so as to minimise numbers of vessels and durations of offshore operations. Sewage will be macerated before disposal at sea or contained and shipped to shore.	Relatively few people would participate in vessel operations, and the offshore programmes are short. The BOD and organic input from sewage would, therefore, be low. Sewage would be readily dispersed in currents offshore and broken down.
Onshore disposal of solid waste.	Onshore impacts as a result of the need to transport waste to recycling sites and landfill sites. Impacts resulting from the use of recycling and landfill sites.	Operations would be carefully planned and managed so as to minimise numbers of vessels and durations of offshore operations. Food waste would be segregated and shipped to shore for disposal as per Talisman's Waste Management Plan. Compliance with UK legislation and Duty of Care requirements. Segregation of waste to allow maximum possible re-use/recycling as per Talisman's environmental goal and targets. Use of designated licensed onshore waste disposal facilities only.	Volumes of waste generated during construction and installation will be small and will be stored, handled, transported and disposed of following the best environmental practice as detailed in Talisman's Waste Management Plan. Overall, the wind farm project's contribution to the use of onshore recycling and landfill sites would be negligible.
Attachment of tower and nacelle to substructure.	Refer to sections on "Presence of vessels" and "Deployment of HLV anchors".	Refer to sections on "Presence of vessels" and "Deployment of HLV anchors".	Refer to sections on "Presence of vessels" and "Deployment of HLV anchors".

Table 6.8 (cont) Construction and installation of the WTGs at the offshore location: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Construction and Installation			
Subsea work at the WTGs and Beatrice AP.	Creation of small amounts of steel 'swarf' from using a diamond wire saw to cut a short section of the 12" riser on Beatrice AP. Disturbance to seabed sediments and communities during manoeuvring of the umbilical ends into the bellmouths at the bottom of the J-tubes.	Carefully planning and management of subsea operations.	Very small amount of underwater cutting by mechanical methods, creating a very small amount of inert steel swarf. Disturbance to the clean seabed would be very localised. A tiny area of benthic communities will be affected, and will be rapidly re-colonised.
Modifications to topside of Beatrice AP.	Use of equipment and possible separate generators may lead to very small addition to local gaseous emissions for the duration of the modifications.	Proper planning and management of activities under the existing Beatrice permit to work system. Use of well maintained equipment to minimise emissions.	Short-term localised gaseous emissions would be rapidly dispersed in the offshore environment.
Accidental Events			
Dropped objects, i.e. accidental overboard loss of major items such as equipment, and loss of minor items such as hand-tools. Accidental release of hydrocarbons or other contaminants to the sea from Beatrice topsides. Accidental release of hydrocarbons as a result of a vessel collision.	The creation of artificial substrata to be colonised by marine organisms. Possible obstruction to fishing. Contamination of water column, pelagic communities or benthic communities. Contamination of the water column, seabed, marine organisms, and possibly coastline adjacent to Beatrice field.	Management of lifting and handling procedures. Careful timing of major lifting and emplacement operations to coincide with permitted operational conditions for vessel and equipment used. Use of certified equipment for lifting. Accurate accounting for all major items of equipment. Requirement to retrieve major items of debris from the seabed after construction and installation. Proper planning and management of modification activities under the existing Beatrice permit to work system. The programme of work to install the WTGs and umbilicals will be carefully planned, to minimise the risk of accidents and collisions. The vessels will be managed by experienced teams well-used to undertaking offshore engineering work in the North Sea and in close proximity to fixed structures and other vessels. Good seamanship and proper communication will be employed to ensure that all vessel activities are co-ordinated and managed properly. The installation operations will take place in summer, when weather is good and daylight hours long. Talisman has a comprehensive oil spill plan in place to deal with a wide range of possible oil spill scenarios that might arise in the Beatrice field as a result of oil and gas operations which was revised in 2004. All the operations for the Demonstrator Project will come under the auspices of this oil spill plan.	The majority of work will be confined within the Beatrice modules, so there would be little risk of dropping objects into the sea. Accidental loss of major items is unlikely as experienced lifting contractors will be used and operations will be carefully planned and managed. Loss of individual hand-tools and other minor items of equipment would not constitute a threat to species, habitats or fishing. No pipework or vessels containing fluids or gases would have to be cut or modified. The risk of collisions in vessels associated with oil and gas operations is very low. The site-specific risk of vessel collisions with the WTGs is estimated to be very low indeed (Section 12). Vessels will be carrying relatively small amount of hydrocarbons.

Table 6.8 (cont) Construction and installation of the WTGs at the offshore location: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Accidental Events			
		<p>Talisman will establish bridging documents with all contractors to ensure that they are aware of the oil spill response plans and procedures, and of their responsibilities and responses under it. All vessels will be audited by Talisman prior to start of operations to ensure that they comply fully with MARPOL and have onboard necessary equipment for containing and cleaning up small spills of oils or lubricants that might arise during normal vessel operations.</p> <p>Talisman has a set of oil spill response equipment on the Beatrice platform, capable of dealing with oil spills up to and including Tier 2 event. Talisman has a contract with Oil Spill Response Limited (OSRL) for the provision of Tier 3 response services.</p>	

Table 6.9 Operation of the WTGs during the Demonstrator Project: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Maintenance Operations			
Physical presence of maintenance vessels.	<p>Potential interference with commercial fishing operations.</p> <p>Potential impedance to navigation.</p> <p>Noise from vessels may disturb cetaceans.</p>	<p>Vessels will work within well defined, small areas around WTGs.</p> <p>Mariners will be notified of the presence of vessels associated with the project and will be advised of the potential hazards to navigation.</p> <p>The selection of reliable equipment and the proper design of the WTGs will reduce the need for maintenance.</p> <p>Planning and management of any required maintenance visits will be controlled by the Beatrice OIM.</p>	<p>Planned maintenance visits will be of short duration (about one day every month), and will require the use of small vessels deployed from the nearby Beatrice platform. Transit times will, therefore, be short and for most of the time maintenance vessels will be operating in the immediate vicinity of one or other WTG.</p> <p>Inconvenience to other users of the sea would be very localised and temporary, caused by the small number of vessels.</p> <p>There will be appropriate communication/notification to vessels in the vicinity, immediately prior to operations commencing.</p> <p>Generally small numbers of cetaceans occur in the area. Cetaceans may move away from vessels in transit, but would return when noise has ceased.</p>
Gaseous emissions from power generation on vessels.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.
Permitted discharge of treated bilge from vessels.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.
Sewage and galley waste discharged from vessels.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.

Table 6.9 (cont) *Operation of the WTGs during the Demonstrator Project: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.*

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Accidental Events			
Dropped objects, i.e. accidental overboard loss of major items such as equipment, and loss of minor items such as hand-tools.	Equipment and materials may be dropped during transfer to and/or from WTGs or while being used on the WTGs. Dropped objects may impact benthic communities and introduce contaminants.	All maintenance programmes will be carefully planned and procedures for accessing and leaving the WTGs will be developed. WTGs have a proper landing stage and small cranes and winches for moving material and equipment. WTGs have proper illumination for all external work areas. Materials will be transferred securely in crates and/or baskets.	No large items will be transferred and there are no anticipated transfers of liquid contaminants during maintenance visits. Very localised area of seabed immediately beneath the substructure may be affected by any dropped objects. Manoeuvring of equipment and material will mainly be within the confines of the tower and nacelle.
Accidental release of hydrocarbons as a result of a vessel collision.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.

Table 6.10 Decommissioning the WTGs: Justification for excluding the causes of risks assessed to be “Not Significant” from further investigation in the EIA.

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Vessel Operations			
Gaseous emissions from power generation on vessels.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.
Permitted discharge of treated bilge from vessels.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.
Sewage and galley waste discharged from vessels.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.
Decommissioning			
Removal of tower and nacelle using HLV.	Refer to section on “Deployment of HLV anchors”.	Refer to section on “Deployment of HLV anchors”.	Refer to section on “Deployment of HLV anchors”.
Cutting the piles and removing the substructures.	Disturbance to sediments and benthic communities as the substructure is lifted clear of the seabed. A small amount of swarf will be created inside the pile from the diamond cutter.	Proper planning and execution of cutting operations to ensure that all cuts are made below the mudline. Proper planning and execution of lifting programme to ensure the substructure is cleanly lifted off the seabed.	Area of seabed disturbance caused by removing the substructure would be very small. Sediments would be re-colonised by benthic organisms from areas immediately adjunct to former sites of WTGs.
Decommissioning the umbilicals.	Removal of the trenched umbilicals would disturb the seabed sediments in a narrow trench along the umbilical route, and impact the associated benthic communities. If the umbilicals are left <i>in situ</i> , they would remain buried and would not cause any impact to benthic communities, fish or fishermen.	Proper planning and execution of any removal programme to ensure a minimal area of disturbance. Any decision to leave the buried umbilicals <i>in situ</i> would be reached in conformance with requirements of the Petroleum Act 1996, DTI Guidelines and OSPAR Decision 98/3.	The area of seabed sediments and benthic communities that might be disturbed would be very small in relation to adjacent habitats. The disturbed sediments would be clean, and natural re-colonisation would proceed immediately after operations ceased. The seabed at the Beatrice area is stable. The buried umbilical would, therefore, remain <i>in situ</i> and would not present a snagging risk to fishing gear. The umbilical does not contain any fluids, and, therefore, would not present a source of contamination to the environment.

Table 6.10 (cont) *Decommissioning the WTGs: Justification for excluding the causes of risks assessed to be "Not Significant" from further investigation in the EIA.*

ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT OR RISK	PROPOSED CONTROL AND MITIGATION	JUSTIFICATION
Decommissioning			
Removal of concrete mattresses.	Temporary disturbance of seabed sediments and benthic communities. Small positive effect, because the removal of the mattresses would return a relatively small area of the seabed to its original condition.	Proper planning and execution of any removal programme to ensure a minimal area of disturbance.	Area of seabed disturbance would be very small, and would be re-colonised quickly after operations were completed.
Onshore recycling/disposal of material.	Gaseous emissions during cutting and recycling. Where materials are disposed of, use of landfill space and loss of resources. Possible short-term inconvenience to communities adjacent to the disposal site. Small positive effect from re-use and/or recycling of materials such as steel.	Compliance with UK legislation and Duty of Care requirements. Segregation of waste to allow maximum possible re-use/recycling as per Talisman's environmental goal and targets. Use of designated licensed onshore waste disposal facilities only. Auditing of waste management to ensure compliance.	Majority of materials would be recycled. The contributions of the wind farm Demonstrator inventories to the effects, emission and discharges at European recycling and disposal sites would be very small.
Accidental Events			
Dropped objects, i.e. accidental overboard loss of major items such as equipment, and loss of minor items such as hand-tools.	Refer to corresponding topic in Table 6.8	Refer to corresponding topic in Table 6.8	Refer to corresponding topic in Table 6.8.
Dropped objects, i.e. accidental overboard loss of major items such as equipment, and loss of minor items such as hand-tools	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.	Refer to corresponding topic in Table 6.8.