

## Marine Works (Environmental Impact Assessment) Regulations 2007, (Regulation 22)

### Environmental impact assessment consent decision

<b>Title</b>	Penzance Harbour extension
<b>Operator</b>	Cornwall Council
<b>Report number</b>	MMO reference DC 8864
<b>Location or block number</b>	Penzance, Cornwall

### Introduction

This document constitutes an environmental impact assessment (EIA) consent decision under regulation 22 of the Marine Works (Environmental Impact Assessment) Regulations 2007 (MWR), in respect of which applications have been submitted by Cornwall Council to:

- i. the Marine Management Organisation (MMO) for a construction licence under section 5 of the Food and Environment Protection Act 1985 (FEPA)
- ii. the Marine Management Organisation (MMO) for consent under section 34 of the Coast Protection Act 1949 (CPA)

The works described in these applications comprise part of a project listed at Annex II of the Directive 85/337EEC on the assessment of the effects of certain public and private projects on the environment (EIA Directive). The EIA Directive has been transposed into UK law for marine works (including works requiring a FEPA licence and/or a CPA consent) by the MWR. The project in this instance comprises the marine elements of the Penzance Harbour extension project.

The application made to the Marine and Fisheries Agency (which became the MMO in April 2010) was supported by an addendum (February 2010) to the environmental statement (ES) as required by regulation 12 of the MWR. A full ES was not required by virtue of regulation 10(1) (b) – as an assessment had already been carried out under the Harbour Works EIA Regulations.

The application and environmental statement (ES) addendum were advertised in the Western Morning News on Thursday 11 February 2010 and The Cornishman on Thursday 18 February 2010 and the Regulator simultaneously made this information available for public comment, as well as formally consulting with a range of consultation bodies which were considered likely to have an interest in the project in accordance with regulations 16 and 17 of the MWR.

## **Project description**

Cornwall Council proposes the development of the South Pier and the Lighthouse Pier. The development comprises the following:

- construction of a new retaining seawall approximately 40 metres southwards of the existing South Pier, with elevated crest of maximum height of 10.2 metres above ordnance datum
- reclamation of approximately 5,150 square metres of inter-tidal foreshore
- a new freight handling facility and a new passenger terminal building
- revised access and egress
- a new covered pedestrian walkway from South Pier extension to Lighthouse Pier embarkation point
- a public access walkway along South and Lighthouse Piers
- an extension to the Lighthouse Pier quay by approximately 50 metres
- the relocation of the existing Lighthouse Pier
- infrastructure and services
- rock armouring to face of South Pier and Lighthouse Pier (200 metres)
- navigational aids.

Works on the reclaimed area will be completed from the shore. Rock fill will be delivered to the site by trucks and an access causeway will be constructed outside of the proposed concrete works to provide both a temporary breakwater and a working platform for the 150 tonne crane and excavator. The fill material will be graded rock of 50 to 200mm in size. Rock armour will be placed on the seaward side of the causeway to protect the fill material. A concrete base will be cast to support the first level of pre-cast blocks. The line of the reclaim wall is generally in the inter-tidal zone so the concrete will be poured at low tide and adequate time given so that no wash-out can occur. Once the initial in-situ concrete has been placed the first level of pre-cast blocks will be placed and levelled. Subsequent block placing on each level will be scheduled as levels are completed. The temporary bund will be removed as the wall is completed and material used as fill behind the wall.

The revetment will be constructed as a land based operation. Rock will be delivered by coaster vessels to a pre-determined trans-shipment site. The coaster will then transfer materials onto a side tipping vessel for onward movement to site. Revetment construction will be carried out in two phases; one up to mean high water springs and the second from mean high water springs to crest level.

The extension of Lighthouse Pier has been modified so that excavation and consequent disposal of material is now unnecessary and the design now consists of a steel tubular piled foundation with rock fill and in-situ slab and pre-cast concrete capping. The piling works, rock anchors, filling, concreting and pre-cast placement will be carried out from a jack-up barge. Tubular steel piles will be driven into the seabed. Rock anchors will be installed by drilling through the steel tubes and into the bedrock. The anchors will then be grouted in position and the inside of the tubes filled with concrete.

## **The environmental statement addendum**

### **Environmental impacts**

The principal potential impacts identified and discussed in the ES addendum were:

- planning context, social and economic effects
- landscape character and visual amenity

- archaeology built and cultural heritage
- traffic and transport management
- ecology and nature conservation
- noise and vibration
- air quality
- coastal processes
- marine water and sediment quality
- geology
- soils and contamination
- surface water and drainage.

## **Consultation**

The application and the ES Addendum Report were sent to:

- Natural England (NE)
- Environment Agency (EA)
- English Heritage (EH)
- Centre for Environment, Fisheries and Aquaculture Science (Cefas)
- Trinity House (TH)
- Duchy of Cornwall (DOC)
- Royal Yachting Association (RYA)
- Cornwall Sea Fisheries Committee
- Maritime and Coastguard Agency (MCA)
- Penzance Harbour (PH).

The applications and the ES were advertised to the public for two successive weeks in local newspapers requesting all comments were sent to the MMO within 42 days from the date of each notice. All comments and objections received in relation to the proposal are summarised below.

## **Representations received**

### **Natural England**

Representation received: Natural England stated that as the proposed works are covered by the Penzance Harbour Revision Order 2009 they do not feel that FEPA/CPA request constitutes new works in respect of its impact on the natural environment and therefore does not object to the proposed works.

Natural England requested that all construction works be designed and carried out to prevent any pollution or contamination of the marine environment.

Regulator's comment: The licence authority agrees that measures are needed to prevent any pollution or contamination of the marine environment (see "Conditions" below).

### **Environment Agency**

Representation received: Environment Agency have no objections to the proposal but request that all construction works must practice appropriate pollution control measures to prevent any pollution or contamination of the marine environment.

During the design and construction planning stages the applicant should consider the potential for the presence of contaminated soils and water situated behind the existing sea walls at the points of tie in and ensure that the risk of pollution to controlled waters from this material (either during construction or post construction phases) is minimised.

Regulator's comment: The licence authority agrees that measures are needed to prevent any pollution or contamination of the marine environment (see "Conditions" below).

### **English Heritage**

First representation received: The application makes no mention of the historic environment interest of the development area. This includes South Pier and associated buildings (dock office and lighthouse) which are grade II listed buildings located within the Penzance Harbour Conservation Area. There is also potential for the survival or archaeological and palaeo-environmental deposits on the sea bed in the harbour area.

Although this application is not accompanied by an environmental statement, the application form notes that an environmental statement was submitted to the MMO as part of a pre-application enquiry. We understand that the application for a harbour revision order (2009, Statutory Instrument no 2325), was accompanied by an ES.

With regard to our previous involvement with the Penzance Harbour development proposals, in December 2009 English Heritage commented on applications for listed building consent and planning permission for these works. We did not object to the linear extension of South Quay. Whilst we were concerned regarding the proposed rock-armour, we accepted the justification for its use. We did, however, object to the area of land reclaim on the basis of the lack of justification provided for the harm to the historic environment. The views expressed in this letter do not supersede those comments but rather should be read in conjunction with them.

For the purposes of DC 8864, our concerns are limited to the impact on the listed buildings and archaeological and palaeo-environmental remains below mean high water springs tide. The listed building consent application, planning and heritage statement which incorporates a design and access statement (Halcrow, October 2009) includes a short heritage statement. Although the remit was mainly concerned with the listed building aspects of the project, sections 4.5 and 4.7 make it clear that there is potential for the survival of archaeological deposits at the end of Lighthouse Pier. Section 4.7 also points out that "there is the potential for the remains of earlier structures to be present within the listed South Pier structure and such material would be considered of archaeological interest as its presence may enable important information regarding the structure of the pier to be recorded" (October, 2009 Halcrow Group Limited).

Regulator's comment: An addendum to the environmental supplement was sent to English Heritage on February 2010.

Second representation received: Our formal response to this application was sent to you on 5 February 2010, before the additional information was received. Please regard this letter as supplementary to that response. This letter should be read in conjunction with it.

We note the intention to use granite to clad the face of the listed sea wall.

The Penzance ES addendum supplementary information report (February 2010) includes a written scheme of investigation and archaeological reporting protocol. We are pleased to see that these have been prepared, however as far as we can ascertain, they were not discussed with English Heritage and Cornwall Council prior to this submission. There are some areas, such as, for example, the recommendations for palaeo-environmental analysis which would benefit from further discussion.

Regulator's comment: Arranged for discussions between applicant and English Heritage to resolve issues relating to the written scheme of investigation.

Third representation received: I have received a revised written scheme of investigation from Halcrow and I am content that implementation of this will address our concerns.

Regulator's comment: The written scheme of investigation now only has to be approved by Historic Environment Service of Cornwall Council prior to the commencement of work (see "Conditions" below).

### **Centre for Environment, Fisheries and Aquaculture Science (Cefas)**

First representation received: Cefas indicated that further work was required with regards to hydrographical modelling. Cefas suggested conditions which could be applied once the modelling issues had been addressed.

Regulator's comment: Licensing authority asked Halcrow to provide further information.

Second representation received: Cefas stated that that more information relating to the calibration of hydrographic numerical models and an assessment of wave data still needed to be supplied.

Regulator's comment: Licensing authority asked Halcrow to provide further information. Halcrow agreed to undertake additional work relating to hydrographical models and wave data.

Third representation received: Cefas satisfied with the modelling work received from Halcrow.

Regulator's comment: The licensing authority considers that the issues raised by Cefas have been addressed by the applicant. The licence authority agrees with the proposed conditions suggested by Cefas (see "Conditions" below).

### **Trinity House**

First representation received: The establishment of an additional single Fl.R. 5 nautical mile range light at the seaward end of the extremity of the extended pier whilst retaining the characteristics of the South Pier Lighthouse would be confusing to the mariner and would therefore not be sanctioned by Trinity House.

It is suggested that the applicant/contractor undertakes a further consultation with the Harbour Master at Penzance with a view to fitting an alternative light at the extended end of the pier, having the same characteristics of the existing South Pier Lighthouse which should then be discontinued as an aid to navigation.

Second representation received: I can confirm that Trinity House approve of your proposals to decommission the navigation lights in the existing lighthouse and replace them with a new navigation light displaying the same characteristics as the existing light at the end of the extended pier.

Regulator's comment: Trinity House responded directly to the applicant and a copy of the response was sent to the licensing authority.

The licensing authority agrees with the proposed changes to the navigation lights (see "Conditions" below).

### **Duchy of Cornwall**

Representation received: The Duchy of Cornwall stated that the proposal would not appear to affect Duchy foreshore or fundus and so they had no comments.

### **Royal Yachting Association**

Representation received: There are no major concerns about the application.

### **Cornwall Sea Fisheries Committee**

Representation received: We do not believe that the proposed development will have a long-term negative impact on commercial fisheries within the vicinity, as to our knowledge, the immediate area of the development is not fished commercially. There is a limited amount of gillnetting adjacent to this area but this is limited by byelaw due to the available depths of water. There is ring netting activity further offshore within Penzance Bay but this is for pelagic species and is usually conducted at night and should not be affected by the construction activity on the site. However we note the proposed use of a small coaster and associated vessels to deliver and trans-ship rock for the development. The location of these vessels and their work patterns will need to be communicated to other sea users and we note that the application specifies the use of a local fisheries liaison officer for this purpose.

Regulator's comment: The licensing authority agree with need to communicate details of the trans-shipment of rock and vessel movements to other sea users and the appointment of a local fisheries liaison officer (see "Conditions" below)

### **Maritime and Coastguard Agency**

Representation received: The proposal has been examined by staff of the Navigation Safety Branch and it can be noted that the proposed works are unlikely to have an adverse impact, with regards to safety of navigation, provided that a number of conditions are applied (see "Conditions" below).

### **Penzance Harbour**

Representation received: The MMO confirmed with the Penzance Harbour Master that they had held discussions with Halcrow Group Ltd and that it had been agreed that the current lighthouse will be decommissioned and the light moved to the end of the pier as requested by Trinity House.

Regulator's comment: The licensing authority agrees with the proposed changes to the navigation lights (see "Conditions" below).

### **Public representations**

The MMO received 2 representations in support of the proposals.

The MMO received 129 representations objecting to the proposals/

The objections were on the following grounds:

1. Affect of development on historic structures in harbour.
2. Loss of recreation area for public swimming.
3. Loss of beach area.
4. Loss of rock pools for education purposes for local children.
5. Affect of the development on seagrass beds.
6. Loss of habitat of purple sandpiper.
7. Affect of the development on marine wildlife.
8. Increase in marine noise and disturbance.
9. The potential presence of seahorses in the area.
10. A potential deterioration in water quality.
11. Navigation problems in the harbour with a larger ship.
12. Other options for development – Option C and Option PZ.
13. The reduction in the number of ships from two to one.

Regulator's comment: The MMO has paid full regard to these various points and offers the following comments.

Under Schedule 5 1 (1) of the MWR, the Marine Management Organisation, as the appropriate authority, determined that the representation was relevant and made provision for addressing it. The applicant was asked to address the representations.

The applicant's response to the objections was as follows.

### **1. Affect of development on historic structures in harbour**

This issue has been dealt with through the listed building consent that was granted on 19 August 2010.

### **2. Loss of recreation area for public swimming**

Access to the areas around Battery Rocks and the platform adjacent to Jubilee Pool will be maintained during and after construction and the proposed reclaimed area has undergone a design review and has been reduced by approximately 20 per cent. This reduces the impact of the proposals on area around the Battery Rocks area and it will still be possible to swim in the area, once the construction works have finished and it is safe to do so. However, it would be advised that swimming close to the development works during construction would pose health and safety risks to bathers, so it would not be permitted in close proximity during the works.

### **3. Loss of beach area**

Fully comprehensive desk-based studies, various site surveys, including ecological surveys of marine and terrestrial species and habitats, including those which are located on the beach, along with in-depth assessments of the potential impacts associated with the scheme have been undertaken throughout the development of the proposals. Any potential adverse or unwanted impacts, such as those on marine species, birds and other wildlife which may frequent the area, or on landscape and visual receptors, have had mitigation proposals developed, where possible, along with further monitoring regimes which will enable baseline data to be collated and the outcome of mitigation measures to be recorded, in order to gauge how the mitigation measures are performing.

In addition, engineering design has been tailored throughout the scheme development in order to minimise the impact of the physical and aesthetic impacts of the structures where possible, unless this detracts from elements which are necessary within the engineering design for strength, form and function.

Consultation with statutory nature conservation bodies, such as Natural England and the Royal Society for the Protection of Birds, along with the Marine Management Organisation (formerly the Marine and Fisheries Agency) has been ongoing throughout the life of the project in order to keep them informed, obtain their advice and to agree the mitigation and monitoring proposals.

### **4. Loss of rock pools for education purposes for local children**

The majority of the rock pools that are located on and around Battery Rocks will be maintained, as the construction works will only cover up 8 per cent of the area of Battery Rocks.

### **5. Affect of the development on seagrass beds**

Where it is considered that there will be a negative or detrimental effect on ecological receptors, such as seagrass, this has been fully assessed, with details of this assessment included within the harbour revision order environmental statement, the environmental statement addenda and the supplementary information document, along with any surveys, monitoring or mitigation that has been proposed.

## **6. Loss of habitat of purple sandpiper**

A number of mitigation solutions and monitoring regimes have been developed through both recommendations held within the harbour revision order environmental statement, and through requirements detailed within a memorandum of agreement. The memorandum of agreement has been developed and agreed upon between Penwith District Council, Natural England and Cornwall County Council in order to compensate for the loss of various marine habitats associated with the proposed works and has arisen since the publication of the HRO ES as a way of addressing various objections to the proposals contained within the harbour revision order.

Specific provisions for purple sandpipers, which have been translated through to the pre, during and post-construction phases for the proposed works in Penzance, include:

- provision of temporary roosts on the outer wall of Jubilee Pool as alternative roost sites for the duration of the works
- ensuring portions of rock armour are above highest tides so that additional high tide roosts are provided for the future (details of this have been agreed with the RSPB)
- artificial foraging habitat in spaces between the rock armour has been designed (details of this have been agreed with the RSPB)
- winter bird counts at high tide and of a duration that allows both the over wintering period and the spring passage period, where significant numbers of purple sandpipers may occur (March to May inclusive), is adequately surveyed
- rock armour placed in a way (if feasible to their stability) to allow accumulation of debris in void spaces which can develop into foraging habitat (details of this is being discussed with the RSPB)
- the design of the new sea wall is to incorporate suitable ledges to allow purple sandpipers to roost.

## **7. Affect of the development on marine wildlife**

Various works have been undertaken, such as marine biotope surveys and otter surveys, along with desk based research and liaison with the relevant statutory undertakers (such as Natural England, English Heritage, RSPB and the Environment Agency). This has been undertaken in order to determine the baseline with regards to what species are present, what their vulnerability and importance is, what we can do to monitor their behaviour, how we can mitigate any adverse impacts to them that may occur through the works and whether we can provide any enhancements as part of the works.

Such proposals include, but are not limited to, monitoring the area during construction to ensure no marine mammals (including cetaceans) or basking sharks are within 1 kilometre of the area 1 hour prior to activities which have the potential to acoustically disturb these species, adoption of the precautionary approach to alleviate operations that could cause acoustic or physical disturbance to marine mammals (including cetaceans), deflection of fish species from the construction area and determination of levels of heavy metals and contamination in shellfish tissues through bio monitoring.

We are also proposing mitigation in the form of new roosting and foraging habitat for bird species and it is expected that marine species and benthic organisms will readily establish and colonise the new structures.

Full details of our proposals with regards to marine wildlife can be found within the harbour revision order environmental statements the environmental statement addenda and the supplementary information document for the works at Penzance Harbour.

## **8. Increase in marine noise and disturbance**

The proposed development does not intend to increase the scale of operations, but rather ensure that they can be undertaken and managed in an improved manner, for example through the creation of a dedicated freight storage area, and improved passenger facilities, so no increases in noise through operation are anticipated.

We propose to reduce the noise impacts of the works during construction through careful plant choice and phasing of operations so that there will be as little as possible acoustic disturbance.

## **9. The potential presence of seahorses in the area**

As part of the environmental assessment undertaken for the harbour revision order environmental statement, an ecological assessment of benthic species was undertaken. All species found within this survey were evaluated within an international, national and county context according to Institute of Ecology and Environmental Management guidelines. In addition, species that were often found associated with seagrass beds, but were not found as part of the survey, were also evaluated.

Within the benthic sediments and rocky reefs, no species found had any level of legislative protection or notification. However, seagrass is known to provide a habitat for the short snouted seahorse (*Hippocampus hippocampus*) which under Schedules 5 of the Wildlife and Countryside Act 1981 is afforded full protection. Therefore, any further surveys that are planned prior to construction will be mindful of the potential presence of seahorses and if any are found, then appropriate mitigation will be developed in liaison with the appropriate nature conservation bodies.

## **10. A potential deterioration in water quality**

Specific mitigation measures, use of best practise construction techniques, adherence to Environment Agency pollution prevention guidelines, along with the adherence to the construction environmental management plan and environmental action plan, which have been developed for the scheme, will ensure that pollution incidents to the water environment will be minimised.

During construction, any activities which have the potential to disturb seabed sediments will be monitored. An "alarm" system will also be incorporated, enabling construction to be stopped if critical levels are exceeded. Suspended solid samples will also be taken and will be analysed, if required, as reference for comparison with turbidity, to refine decisions on future "alarm" levels. As there is a risk of release of contaminants already occurring within sediments during construction, water samples will be taken daily across the sediment plume during which have the potential to disturb seabed sediments and analysed for TBT and TPT and the common heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc, mercury).

Although the data available suggests that the bacteriological sediment quality is reasonable, there is the risk of disturbing pockets of accumulated silts and associated bacteria. Therefore, if activities which have the potential to disturb seabed sediments occur during the bathing season (May to September) water just offshore of adjacent monitored bathing waters will be monitored for bacterial contaminants. This would not be necessary outside the bathing season.

## **11. Navigation problems in the harbour with a larger ship**

The changes to the harbour to accommodate the larger vessel have been assessed through the harbour revision order process. The new vessel will berth on the existing Lighthouse Pier berth in the same way as the existing Scillonian III, the pier is to be extended to accommodate the increased length of the vessel as well as to improve protection to the berthing area from waves. The new vessel on this berth is not expected to affect navigational access to either the wet dock, or the inner harbour which is used for small boat moorings and access to the dry dock.

## **12. Other options for development – Option C and Option PZ**

These are not material considerations in relation to the FEPA and CPA applications for the proposed works at Penzance Harbour.

## **13. The reduction in the number of ships from two to one**

The proposed changes to the vessel have been assessed through a series of studies that informed the current proposals and the major scheme bid application for government funding for the works. These studies have shown that the proposed vessel provides the most economic long term solution to the continued link from Penzance to the Isles of Scilly.

Regulator's comment: We are satisfied that the objections raised by members of the public have been adequately addressed by the applicant.

## **Conditions**

Following consideration of all relevant information, including the ES addendum and the outcome of the consultation, the regulators consider that the following conditions must be included in either the FEPA licences or CPA consents (as detailed in the Regulatory evaluation - recommendations below, and subject to legal drafting). Where the conditions derive wholly or in part from recommendations from consultees, the conditions are assigned to the relevant consultation body.

### **Natural England**

- Minimise the disturbance of sediments.
- Ensure wet concrete does not enter the marine environment.
- Ensure no materials stored temporarily on the foreshore or seabed.
- Appropriate measures to deal with any spillages are in place before construction work starts.
- Environment Agency pollution prevention guidelines for works in or near watercourses (PPG5) should be adhered to at all times. This is available at [www.environment-agency.gov.uk/business/topics/pollution/39083.aspx](http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx)

Regulator's response: After discussions between the applicant and the MMO, the regulator has decided that the following conditions will be more appropriate than the ones listed above:

- Precautions are taken to minimise the risk of contamination of the water or foreshore from wet concrete/mortar products as described in the methodology submitted to the licensing authority in the ES addendum of February 2010.
- Temporary deposits on the foreshore or seabed is limited to the areas included in the licence application. Any equipment, temporary works and debris associated with the works must be removed from the foreshore/seabed upon completion of the works.
- Suitable bunding, storage facilities should be employed to prevent the release of fuel oils, lubricating fluids associated with the plant and equipment into the marine environment.

The following condition has been added by the Licence Authority as part of the environmental monitoring of the works:

- Ensure that Halcrow Group Ltd adhere to the contractor's environmental management plan as submitted to the licensing authority in November 2010 throughout the construction phase.

### **Environment Agency**

- Minimise the disturbance of sediments.
- Ensure wet concrete does not enter the marine environment.

- Ensure no materials stored temporarily on the foreshore or seabed.
- Appropriate measures to deal with any spillages are in place before construction work starts.
- Environment Agency pollution prevention guidelines for works in or near watercourses (PPG5) should be adhered to at all times. This is available at [www.environment-agency.gov.uk/business/topics/pollution/39083.aspx](http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx)

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- Precautions are taken to minimise the risk of contamination of the water or foreshore from wet concrete/mortar products as described in the methodology submitted to the licensing authority in the ES addendum of February 2010.
- Temporary deposits on the foreshore or seabed is limited to the areas included in the licence application. Any equipment, temporary works and/or debris associated with the works must be removed from the foreshore/seabed upon completion of the works.

### **English Heritage**

- A written scheme of investigation must be agreed with English Heritage and the Cornwall Council Historic Environment service prior to the commencement of the work. Written confirmation of the agreement must be supplied to the Licensing Authority before work commences.

Regulator's response: The written scheme of investigation has been agreed with English Heritage. The condition has therefore been modified to the following:

- A written scheme of investigation must be agreed with the Cornwall Council Historic Environment service prior to the commencement of the work. Written confirmation of the agreement must be supplied to the licensing authority before work commences.

The following condition has been added by the licence authority:

- Ensure that Halcrow Group Ltd carry out the work in accordance with the written scheme of investigation supplied to the Licensing Authority in January 2011.

### **Centre for Environment, Fisheries and Aquaculture Science (Cefas)**

- Suitable bunding, storage facilities should be employed to prevent the release of fuel oils, lubricating fluids associated with the plant and equipment into the marine environment.
- Any equipment, temporary works and/or debris associated with the works are removed from the foreshore/seabed upon completion of the works.
- Precautions are taken to minimise the risk of contamination of the water or foreshore from wet concrete/mortar products.
- Every effort is taken to minimise re-suspension of sediment during these works. For example using a 'driving' piling method rather than excavation.
- Percussive piling must be undertaken using agreed 'soft start' procedures.
- Any coatings/treatments utilised are suitable for use in the marine environment and are used in accordance with best environmental practice.
- All chemicals (including anti washout admixture) utilised are selected from the list of notified chemicals assessed for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (this list can be sourced on [www.cefas.co.uk](http://www.cefas.co.uk)).

- The licensing authority is notified of the names of the vessels and the names of their owners to be employed in the operation of material deliveries by sea, prior to commencement of the works.
- The rock material used as rock armour is inert and contains minimal fines.
- The amount of rock placed is kept to the minimum required and excess rock must be returned to land.
- Any vessels used for material transshipment or delivery operations are suitably constructed and loaded to prevent materials falling over the side by accident. Materials should not be loaded too close to the barge gate. Suitable screening must be used to prevent material losses through drainage holes. Any vessels that become unsuitable should be withdrawn from service until they can be repaired.
- All practicable steps are taken to avoid any loss of rock during the transshipment or placement operation. Any loss is to be reported to the District Marine Officer at Newlyn within 48 hours, and recovered as soon as possible.
- Vessels used in the construction works have suitable marine pollution contingency plans for spills. Practices used to refuel vessels at sea must conform to industry standards.
- All operatives (barge master, bucket and grab operators) are made fully aware of the FEPA licence conditions and safety requirements before transshipment work commences.
- Any transshipment areas and approach routes are agreed with the local fishing industry and the District Marine Officer at least five days prior to the arrival of the delivery vessel.
- A notice to mariners is published before work commences providing a description of the location and the timing of the work.
- A Fisheries Liaison Officer is appointed. To be approved by the District Marine Officer, 46 Fore Street, Newlyn, Penzance, Cornwall, TR18 5JR (Tel: 01736 362 805, Fax: 01736 350 429). The Fisheries Liaison Officer will have the responsibilities as follows:
  - i. To be familiar with the conditions attached to the licence.
  - ii. To come to agreement with the licence holder as to the type of approach routes to be taken by the vessels, so as to minimise interference with fishing activity. This is subject to approval by the District Marine Officer at Newlyn.
  - iii. To agree a position/positions for anchorage within the location of the works, should this be necessary, so as to minimise interference with fishing activity. This is subject to approval by the District Marine Officer at Newlyn.
  - iv. To liaise with the fishing industry, in order to minimise conflict and advise on the timing of deliveries, the delivery route and any delays or halts of operation.
  - v. Report any loss of materials, equipment or machinery below mean high water springs to the District Marine Officer.
  - vi. To satisfy himself/herself that any items so lost are recovered prior to completion of the works.
  - vii. To liaise with the licence holder to minimise interference to launching and recovery of vessels on the beach.
  - viii. To report any incidents of conflict to the District Marine Officer immediately.

Regulator's response: Following a discussion with the local MMO office in Newlyn it was decided that the condition related to the appointment of a Fisheries Liaison Officer was not needed as there was little fishing activity in the vicinity of the proposed work and any navigational issues would be addressed by the Penzance Harbour Master.

Following a discussion with Cefas, it was agreed that the proposed condition relating to list of notified chemicals was relevant to the oil and gas industry and not harbour works. Cefas agreed that the condition could be removed as long as there was a condition to minimise concrete contamination in the marine environment.

The licensing authority has decided that the following condition is the most appropriate to minimise concrete contamination:

- Precautions are taken to minimise the risk of contamination of the water or foreshore from wet concrete/mortar products as described in the methodology submitted to the licensing authority in the environmental statement addendum of February 2010.

The details of all vessels and vessel operators have already been confirmed therefore a condition relating to the details being provided prior to the commencement of the works is no longer required.

The condition relating to all operatives being aware of the FEPA conditions before work commences has not been included as it is appears in part 3 of the FEPA licence.

The licensing authority has decided that the following conditions will be more appropriate than the ones listed above:

- Ensure that soft start protocols are adopted to reduce noise from percussive piling.
- Ensure that any rock material used as rock armour is inert and contains minimal fines.

### **Trinity House and Penzance Harbour**

Decommission the navigation lights in the existing lighthouse and replace them with a new navigation light displaying the same characteristics at the end of the extended pier.

### **Cornwall Sea Fisheries Committee**

- Any transshipment areas and approach routes are agreed with the local fishing industry and the District Marine Officer at least five days prior to the arrival of the delivery vessel.
- A notice to mariners is published before work commences providing a description of the location and the timing of the work.

Regulator's response: Following a discussion with the local MMO office in Newlyn it was decided that the condition related to the appointment of a Fisheries Liaison Officer was not needed as there was little fishing activity in the vicinity of the proposed work and any navigational issues would be addressed by the Penzance Harbour Master.

### **Maritime and Coastguard Agency**

- A copy of this consent must be given to each contractor appointed to carry out part or all of 'the works' in order that they are clear about the extent of 'the works' for which consent has been given and the conditions that are attached to the consent.
- Appropriate steps are taken to minimise damage to the beach/ foreshore/river bank by the works.
- Any equipment, temporary works and/or debris associated with the works are removed from the foreshore upon completion of the works.
- The best method of practice is used to minimise re-suspension of sediment during these works.
- Suitable bunding, storage facilities are employed to prevent the release of fuel oils, lubricating fluids associated with the plant and equipment into the marine environment.
- Ensure the local mariner's and fishermen's organisations are notified.
- Notify the UK Hydrographic Office to permit the promulgation of maritime safety information and updating of nautical publications.
- The works shall be maintained at all times in good repair.

- Officers of the MCA, or any other person authorised by the Secretary of State, should be permitted to inspect the works at any reasonable time.
- The site is within port limits and the responsible local navigation authority, Penzance Harbour, in close consultation with the Harbour Commissioners, may wish to issue local warnings to alert those navigating in the vicinity to the presence of the works during the construction. Additionally, they may need to review their Port Marine Safety Code risk assessments.
- The matter is an issue for the local harbour authority with conservancy responsibilities. They have the responsibility within their port limits for ensuring their harbour is fit for use, by, for example, not permitting the spoil to foul navigable channels thus assuring the safety of navigation.
- Vessels to comply with the International Regulations for Preventing Collisions at Sea 1972 (COLREGs) as amended, particularly with respect to the display of lights, shapes and signals.
- The works should be marked and lighted in accordance with the requirements of the General Lighthouse Authority in this case Trinity House Lighthouse Service.
- Any jack up barges / vessels utilised during the works, when jacked up, should be exhibit signals in accordance with the UK Standard Marking Schedule for Offshore Installations.
- Ensure that if they transmit safety information via Navtex or Coastguard VHF radio in respect of the proposed works that they pay the appropriate fees to the Maritime and Coastguard Agency.

Regulator's response: The following conditions have not been included on the licence as they will be dealt with by the issue of a Notice to Mariners and by the powers of the local harbour master:

- Ensure the local mariner's and fishermen's organisations are notified.
- The site is within port limits and the responsible local navigation authority, Penzance Harbour, in close consultation with the Harbour Commissioners, may wish to issue local warnings to alert those navigating in the vicinity to the presence of the works during the construction. Additionally, they may need to review their Port Marine Safety Code risk assessments.
- The matter is an issue for the local harbour authority with conservancy responsibilities. They have the responsibility within their port limits for ensuring their harbour is fit for use, by, for example, not permitting the spoil to foul navigable channels thus assuring the safety of navigation.

## **Regulatory evaluation**

In considering the applications for the marine elements of the Penzance Harbour extension project, in particular the supporting ES addendum, the relevant provisions of the FEPA, the CPA and the responses from representations, a full and detailed assessment has been made of the potential direct and indirect effects of the proposals on human beings, fauna and flora, soils, water, air, climate, the landscape, material assets and the cultural heritage and the interaction between any two or more of these factors.

The MMO, as the appropriate authority and the regulator, endorse the findings of the ES and, subject to the inclusion of the conditions referred to above in either the FEPA licence or CPA consent that they may grant in due course, are of the opinion that the marine elements of the project will not have a significant adverse effect on the environment.

## **Recommendations**

Having carried out assessments of the potential environmental impacts of the proposed project, the reviewers acting on behalf of the licensing authority make the following recommendations.

## **The licensing authority**

The MMO is satisfied that the ES addendum adequately addresses all environmental issues in relation to the Penzance Harbour extension project, subject to the conditions referred to above being included in the relevant FEPA licence, CPA consent subsequently issued by the MMO.

The reviewer acting on behalf of the MMO recommend that a favourable EIA consent decision is given in respect of the project, subject to the inclusion of the above conditions being attached to any relevant FEPA licences and CPA consents

**Environmental Impact Assessment Reviewer:**

The licensing authority (MMO) – David Morris.

March 2011

**Environmental impact consent decision**

Having considered the analysis and recommendations of the environmental impact assessment process above, an environmental impact assessment consent decision is given in **favour of** the Penzance Harbour construction project in accordance with Regulation 22 of the MWR.

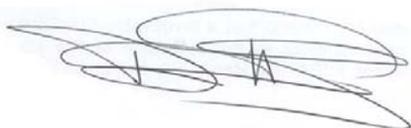
**Approved:**



**Date:** 4 March 2011

Victoria Harwood  
Marine Consents Manager, Marine Management Organisation  
**On behalf of the Secretary of State for Environment, Food and Rural Affairs**

**Approved:**



**Date:** 4 March 2011

Brian Hawkins  
Head of Marine Development Control (East), Marine Management Organisation  
**On behalf of the Secretary of State for Environment, Food and Rural Affairs**