

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

Environmental Impact Assessment Consent Decision

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| Title: | Gateway Gas Storage Project (GGSP) |
| Operator: | Gateway Storage Company Limited |
| Report No: | MFA Ref DC 8255 DECC Ref D/3707/2007 |
| Location / Block No: | Eastern Irish Sea (Block 110/3b) |

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 Gateway Storage Company Limited (the Company) to:

- (i) the Marine and Fisheries Agency (the Agency) for a licence under section 5 of the Food and Environment Protection Act 1985 (FEPA);
- (ii) the Agency for consent under section 34 of the Coast Protection Act 1949 (CPA); and
- (iii) the Department for Energy and Climate Change (DECC, whose functions at the time of the application were exercised by the Department for Business, Enterprise and Regulatory Reform) for consent under section 34 of the 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 an underground offshore gas storage project.

The applications made to both the Agency and DECC (the Regulators) were supported by an Environmental Statement and additional supporting information as required by regulation 12 of the MWR. Since the Company had previously agreed with the Regulators that the project should be subject to an environmental impact assessment (EIA), in accordance with regulation 5 of the MWR, there was no requirement to screen the applications in accordance with regulation 11 of the MWR.

The Application and Environmental Statement (ES) were advertised in the press during 2007 and the Company and the Regulators jointly 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. Supplementary information was prepared in June 2008, in response to the comments received, and was also made available for public

comment and sent to the formal consultation bodies.

A further application in relation to the project was made by the Company to DECC, seeking a pipeline works authorisation under Part III of the Petroleum Act 1998. This application was supported by the ES and supplementary information referred to above, as required under regulations 4 and 5 of The Offshore Petroleum Production and Pipe-lines (Assessment of Environmental Effects) Regulations 1999. This additional EIA requirement was included in the public notice advertisement made during 2007, and included in the formal consultation process.

Applications in respect of the land-based elements of the project were made to Barrow Borough Council for Planning Consent under the Town & Country Planning Act 1990, and supported by a separate Environmental Statement. The Council undertook an Environmental Impact Assessment in accordance with the Town & Country Planning (Environmental Impact Assessment) Regulations 1999 and granted Planning Consent in 2008.

Project Description:

The Company proposes to construct an offshore gas storage facility in the Eastern Irish Sea.

The proposed gas storage facility will be located southwest of Barrow in Furness, approximately 24 kilometres (km) offshore from Fylde, North West England. It will comprise 20 gas storage caverns created in the sub-seabed salt strata. A single well will be drilled at each cavern location, and the salt will be removed using seawater pumped down the well. The dissolved salt, or brine, will then be discharged directly to the sea. The size and shape of the caverns will be controlled using an established technique known as Solution Mining Under Gas (SMUG). At each well location, a monopod tower facility will be installed, to house the solution mining equipment required during the construction phase, and the gas injection and extraction wellhead equipment that will be required for the storage operations. It is proposed that the monopod towers will be drilled into position, although there is a contingency for them to be piled into place if drilling is not feasible.

A short pipeline and methanol feeder pipe will connect each wellhead facility to an 8 km 'ring main' linking all the caverns. The 'ring main' will consist of a single 36" diameter gas pipeline with a 'piggy-backed' 4" diameter methanol feeder line. Two 36" diameter carbon steel pipelines will connect the 'ring main' to the onshore gas compressor station at Barrow. A 4" diameter methanol feeder line will be 'piggy-backed' on one of these pipelines. Power for the offshore facilities will be provided via a single cable laid alongside the more southerly of the two pipelines, with individual connections to each monopod tower. The offshore sections of the pipeline and cable systems up to the point of connection with the 'ring main' will be approximately 19 km in length. The pipeline and cable systems will be trenched, and the trenches allowed to backfill naturally. Where necessary this will be supplemented by imported backfill. The trenches for the two 36" pipelines will be approximately 20 metres (m) apart, and the trench for the power cable will be approximately 10 m from the more southerly of the two pipelines. The two pipelines will cross the Barrow Offshore Windfarm (OWF) power cable, and the 'ring main' will cross the Rivers Field export pipeline and the Isle of Man power cables. All crossings will be suitably protected.

There is no single piece of legislation under which all elements of this project can be consented. The project is therefore being regulated under legislation administered by the Agency and DECC. The Energy Bill that is currently before Parliament includes provision for offshore gas unloading and storage.

The construction of the wells, caverns and associated infrastructure, and the proposed operation of the storage facility, including the initial injection of gas into the caverns to test and ensure their structural integrity and the subsequent injection of gas for storage

purposes, are the subject of the applications to the Agency under Section 5 of FEPA and Section 34 of the CPA. The Agency intends to license the injection of gas to displace water from the caverns, and for the initial filling of the caverns, prior to the gas storage facility being commissioned for operational use. However, it does not intend to issue any approvals in respect of the injection of gas for the subsequent on-going operational use of the facility, as it considers it more appropriate that this should be the subject of a gas storage licence under the new Energy Bill regime.

The construction of the pipeline and cable systems between Low Water Mark (LWM) and the connections to the monopod towers are the subject of the applications to DECC under Part III of the Petroleum Act 1998 and under Section 34 of the CPA. The competent authority for these applications is DECC. The sections of the pipeline and cable systems between LWM and Mean High Water Springs (MHWS) to the west of Walney Island and from MHWS to MHWS across the Piel Channel are the subject of applications under Section 5 of the FEPA and Section 34 of the CPA. The competent authority for these applications is the Agency.

A schematic representation of the controls relevant to the marine works is annexed to this Consent Decision.

THE ENVIRONMENTAL STATEMENT

Environmental Impacts:

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

Physical presence, potentially resulting in effects on other users of the sea; seabed disturbance; noise and vibration; marine discharges; solid wastes; atmospheric emissions; hydrocarbon releases resulting from accidental loss of containment; cumulative impacts relating to other anthropogenic activities in the area; and landscape, seascape and visual environment issues.

Environmental Sensitivities:

The principal environmental sensitivities identified and discussed in the ES were:

Liverpool Bay pSPA: Liverpool Bay has been identified by the Joint Nature Conservation Committee, Natural England and the Countryside Council for Wales as potentially qualifying as a Special Protection Area (SPA) for the Common Scoter and Red-throated Divers. The boundaries for the Liverpool Bay pSPA have not been finalised, but have been proposed. However, it is recognised that ongoing discussions may lead to a reduction in the protected area for the Common Scoter. The majority of the Gateway Gas Storage Project falls inside the currently proposed boundaries, and it was therefore considered appropriate to use those boundaries for assessment of the project.

Impacts on Other Users of the Sea: The potential impact on both commercial fishing operations and shipping.

THE APPROPRIATE ASSESSMENT

DECC prepared an Appropriate Assessment (AA) on behalf of both Regulators, in accordance with the requirements of The Conservation (Natural Habitats, &c.) Regulations 1994 The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 and The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (as amended). The AA was issued to relevant consultees in August 2008, and amended following consultation.

The leased site for the proposed Gateway Gas Storage Project covers approximately 19 km², but the area of the seabed that will be occupied by the monopod towers will be

only 0.002 km² and the area occupied by the pipelines and cable systems, including the disturbance corridor during laying operations will be only 0.68 km². The leased site therefore represents approximately 0.96% of the area of the currently proposed Liverpool Bay pSPA (estimated total area of 1,975 km²), and the total area directly impacted by the proposals represents only approximately 3.6% of the total leased site, or less than 0.035% of the Liverpool Bay pSPA.

Densities of Common Scoter recorded at the location of the proposed gas storage site are considerably lower than densities recorded elsewhere within the pSPA, with only 17 Common Scoter recorded during 2004 and 2005 out of a peak wintering observed population of approximately 19,000 individuals and a peak wintering estimated population of approximately 47,000 individuals. Based on these figures, a maximum of approximately 0.09% of the wintering population could be displaced.

Seabird survey data also indicates that the main feeding areas for Common Scoter in the vicinity of the proposed development are at least 10 km to the east of the monopod tower complex, confirming that the complex is outwith the most important area for Common Scoter. The potential impact of construction and maintenance vessels and activities at the gas storage facility will therefore be trivial, and the potential impact of vessels travelling to and from the site will be greater but still significantly less than the potential impact of other vessel movements in this general area.

Benthic community survey data suggests that, should any displacement occur due to vessel movements or activities in the vicinity of the monopod tower complex, the birds would be able to find other suitable foraging or roosting areas elsewhere within the proposed pSPA (Kaiser 2002).

Taking into account all of the above, it was concluded that the proposed Gateway Gas Storage Project would not result in an adverse effect on the integrity of the Liverpool Bay pSPA as a consequence of the displacement of the Common Scoter.

The most important areas for Red-throated Divers within the Liverpool Bay pSPA are found to the north and south-east of the proposed gas storage facility. Red-throated Divers are widely dispersed throughout the Liverpool Bay area, occurring both within and outwith the area that will be occupied by the gas storage facility, but surveys undertaken since 2004 indicate that the area occupied by the monopod towers is only infrequently used by Red-throated Divers.

Estimates of spatial displacement for the Red-throated Diver are similar to those derived for the Common Scoter. It was therefore concluded that the project would not result in an adverse effect on the integrity of the Liverpool Bay pSPA as a consequence of the displacement of Red-throated Divers.

CONSULTATION

Formal Consultation: The applications and the ES were sent to the Joint Nature Conservation Committee (JNCC), Natural England (NE), English Heritage (EH), the Centre for Environment, Fisheries and Aquaculture Science (CEFAS), the Environment Agency (EA), the North Western and North Wales Sea Fisheries Committee (NWNWSFC), the Maritime and Coastguard Agency (MCA), the Royal Yachting Society (RYA), Trinity House (TH), the Crown Estate (CE), Barrow Borough Council (BBC), Wyre Borough Council (WBC), Blackpool Council (BC), the British Wind Energy Association (BWEA), and the National Federation of Fishermen's Organisations (NFFO).

Public Notice: The applications and the ES were advertised in national and local newspapers, and comments were received from the Royal Society for the Protection of Birds (RSPB), the Harbour Master, Associated British Ports Barrow (ABP), DONG Energy,

Scottish Power, Mr G Mitchinson, Mr F Riding, Mr M Porter, Mr L Sheard, and Mr K McGuire.

Following the initial consultation, the Company provided supplementary information to address the comments received, which was sent to the formal consultees and made available to the public.

Representations Received:

JNCC / NE:

Initial Response: A joint response was provided by JNCC and NE. They advised that consent should be withheld pending the outcome of an Appropriate Assessment (AA) to assess potential effects on the Liverpool Bay pSPA. JNCC / NE also requested additional information in relation to the noise that would be generated during the installation of the monopod towers; the scour protection and rock dumping activities; the protective measures at cable and pipeline crossings; the robustness of the survey data; monitoring proposals; landscape and visual impact issues; and decommissioning.

Subsequent Response: NE confirmed that the supplementary information provided a degree of clarification, and proposed the inclusion of conditions (see "Conditions" below) within the relevant approvals to address their outstanding concerns. They also confirmed that they were content to agree with the conclusions of the amended AA.

Regulators' Comment: DECC confirmed that a decommissioning plan for the entire project would be required under the Petroleum Act 1998 (as amended by the provisions of the Energy Bill, which are anticipated to come into force by April 2009), and that the plan would be subject to stakeholder consultation and the approval of the Secretary of State prior to the commencement of any decommissioning operations.

EH:

Initial Response: EH confirmed that, following earlier correspondence with the Company's consultants, side-scan sonar and magnetometer surveys had been carried out within the offshore gas storage cavern area, and along the line of the proposed subsea pipeline system. The surveys failed to identify evidence of archaeological material, with the exception of a single wreck lying approximately 130 m from the line of the proposed pipeline. In view of these results, they did not consider that there are likely to be significant impacts on maritime archaeological remains, or that archaeological work would be required, in relation to the offshore elements of the project.

Subsequent Response: EH confirmed they had no additional comments.

CEFAS:

Initial Response: Additional information was requested in relation to the monopod tower installation operations; and the monitoring of impacts, including potential impacts resulting from the solution mining discharges of brine. CEFAS also recommended that there should be full consultation with the local fishing industry, as the area includes locally important fishing grounds (see "Conditions" below).

Subsequent Response: CEFAS confirmed that they did not consider that the nature, scale and location of the pipeline and cable works merited an AA under the relevant regulations. CEFAS further confirmed that they were content with the scoping and conclusions of the environmental impact assessment undertaken by the applicant, but recommended that the relevant approvals should be subject to conditions to protect the marine environment and other users of the sea (see "Conditions" below).

EA:

Initial Response: The EA indicated that there were two aspects of the proposal which had the potential to impact on migratory salmonids returning to the Lune and Ribble

catchments, the cavern leaching and the pipeline installation. However, as the salmonids migrate in the upper layers of the water column, and the leaching modelling suggests that the greatest impact on salinity would be close to the sea bed within 300 m of the caverns, they did not consider this to be a significant threat to the salmonids. They additionally commented that they did not consider the timings of adult salmonid migration to be correctly stated in the ES, as most salmon and sea trout have already entered the river systems by November.

Subsequent Response: The EA reiterated their previous comments regarding the potential to impact the migration of Atlantic Salmon, and additionally lampreys, as they move to and from their riverine breeding grounds. In the absence of detailed information regarding migration routes and the timing of the migrations, they recommended that the precautionary principle should be applied with respect to the timing of any activities that could have a potential adverse impact.

NWNWSFC:

Initial Response: The NWNWSFC indicated that they had concerns in relation to the potential impact on fisheries in the Fleetwood area, principally related to the loss of fishing grounds in the Fleetwood area as a consequence of the establishment of exclusion zones, the additional navigational hazards, the impact of the brine discharge on sea salinity and temperature, and the potential hazards to fishing gear if the cables/pipelines are not buried effectively. They were not convinced that these issues had been adequately addressed in the ES, or that the mitigation measures proposed would be adequate to address their concerns. They further recommended that the Company should collaborate with other developers with projects in the Eastern Irish Sea to ensure that a fund is available to compensate fishermen for loss of earnings and, if necessary, enable modernisation of the fleet.

Regulators' Comment: The impact of the discharge of the brine was modelled and found to have a minimal and short term effect on the marine environment, almost exclusively confined to the area directly around each of the monopods. The Agency, in conjunction with their scientific advisors, has assessed the modelling results and is content that the impact will be negligible. Nevertheless, conditions will be included in the relevant FEPA licence requiring the Company to monitor the brine discharge to ensure that the dispersion and dilution mirrors the results of the modelling, and to assess whether any mitigation is desirable (see "Conditions" below). With regard to the potential navigational hazards, the MCA is considered to be the competent body to assess the risks, and they are content with the proposal on the understanding that additional traffic studies will be undertaken during the construction and installation phases to establish the necessity for risk control measures relating to the safety of navigation during subsequent works and the operation of the gas storage facility. Conditions will be included in the relevant licences/consents requiring the Company to carry out these additional traffic studies, and the proposals will have to be sent to the Agency and MCA for approval (see "Conditions" below). The Company will also be strongly encouraged to discuss the compensation and fisheries interference issues with the Eastern Irish Sea Windfarm Group.

MCA:

Initial Response: MCA indicated that measures to assure maritime safety had been inadequately addressed. Additional information was requested in relation to the navigation and collision risk assessments, including potential cumulative impacts with other projects in the area; shipping densities; anchor penetration; the impact on the Barrow approach channel; pipeline and cable burial; maritime communications; and radar and positioning systems.

Subsequent Response: MCA confirmed that they were content with the offshore pipeline element of the proposals, on the understanding that the pipelines and cable systems

should be located at least 230 m from the Barrow approach channel. MCA further confirmed that they were content with the monopod tower complex, on the understanding that additional traffic studies would be undertaken during the construction and installation phases to establish the necessity for further risk control measures relating to the safety of navigation.

Regulators' Comment: DECC has confirmed that the requirement to locate the pipelines and cable systems at least 230 m from the Barrow approach channel will be a condition of the pipeline works authorisation issued under Part III of the Petroleum Act 1998. As indicated above, conditions will be included in the relevant licences/consents requiring the Company to carry out the additional traffic studies requested by the MCA (see "Conditions" below).

RYA:

Initial Response: RYA sought assurance that there would be appropriate lighting to indicate where the surface obstructions were located, and that the monopod area would be made a prohibition zone. Given that the monopod area is adjacent to the Morecambe Bay oil/gas field, and the Shell Flats, West of Duddon Sands and Walney Windfarms, ensuring safe navigation would be of great concern to cruisers, particularly those transiting from Morecambe Bay, Barrow and Heysham to the Isle of Man, North Wales, Ireland and Liverpool, and from Liverpool and North Wales to Scotland.

Regulators' Comment: The MCA has provided advice and recommendations on navigational safety, and Trinity House has provided advice and recommendations on lighting for the monopods. Their recommendations will be incorporated into relevant approvals, and both bodies have confirmed that they are now content with the project (see "Conditions" below).

TH:

Initial Response: TH confirmed that they had no objections to the proposals in relation to the safety of mariners, subject to certain conditions in relation to lighting of the monopods.

Subsequent Response: TH confirmed that they had no further comments on the proposals.

Regulators' Comment: As indicated above, conditions will be included in the relevant approvals to meet Trinity House's requirements (see "Conditions" below).

CE:

Initial Response: CE confirmed they had given consent for a lease for the project to the Company, which was signed in November 2007.

Subsequent Response: CE confirmed they had no further comments.

BBC:

Initial Response: BBC required that consideration should be given to ensuring that the scheme would have a minimum impact upon the environmental resources of Morecambe Bay; to safeguarding maritime activity, in particular preventing undue hindrance of continued operation of the Port of Barrow; and to ensuring the general protection of the Borough and its residents. They considered that the technical matters associated with the proposals would be best addressed by other agencies. BBC provided the Agency with a copy of their planning committee consent and conditions.

Regulators' Comment: The planning conditions relevant to the marine works will be included in the licences/consents for the pipeline crossing of the Piel Channel (see "Conditions" below).

WBC:

Initial response: WBC confirmed they did not have any comments to make in respect of

the proposals, as they were confident that relevant legislation/bodies would adequately address any concerns or impacts on the environment.

BC:

Initial response: BC confirmed it had no objections to the proposals, subject to receiving assurances from the Health and Safety Executive (HSE) that there would be no risks to Blackpool residents or visitors from an explosion at the facility.

Regulators' Comment: As part of the consenting process the Company must get consent from the HSE.

BWEA:

Initial Response: BWEA requested assurances in relation to navigational safety, cable crossings and cumulative impacts.

Regulators' Comment: The MCA has provided advice and recommendations in relation to navigational safety, and have confirmed that they are now content with the project. The issue of cable crossings has been overcome by letters of comfort between the Company and the relevant windfarm developers. The Regulators are content that potential cumulative impacts have been adequately assessed in the ES and the supplementary information.

NFFO:

Initial Response: No initial response was received.

Subsequent Response: NFFO confirmed it had not received any specific concerns from the local fishing industry in relation to the project. Nevertheless, they were concerned about the levels of marine development within the region and their cumulative impacts upon the fishing industry resulting from the loss of fishing grounds and the increased navigational risk.

Regulators' Comment: MCA has provided recommendations in relation to the navigational risk, and are content with the proposal on the understanding that additional traffic studies will be undertaken during the construction and installation phases to establish the necessity for further risk control measures relating to the safety of navigation. This requirement will be addressed in the relevant licences/consents (see "Conditions" below). The Regulators are content that potential cumulative impacts have been adequately assessed in the ES and supplementary information.

RSPB:

Initial Response: RSPB objected to the proposal on the grounds of potential disturbance to qualifying bird species occupying the Liverpool Bay pSPA, indicating that they considered that the facility should not be located within the pSPA. They advised that an Appropriate Assessment (AA) should be undertaken prior to any determination.

Subsequent Response: RSPB confirmed they were content to remove their objection to the proposal and, following consultation, accepted the amended AA, subject to the inclusion of conditions in the licences/consents (see "Conditions" below).

ABP:

Initial Response: ABP reinforced the concerns raised by MCA, and drew particular attention to the issues of pipeline and cable laying and burial operations; anchor penetration; and the impact on anchorage and shipping movements in, and adjacent to, the Barrow approach channel. They requested effective burial of the pipelines in the port approaches, and highlighted the fact that shipping using the port of Barrow would be unable to anchor safely in the port approaches, and that there would be the risk of a pipeline accident caused by ship's anchors. They were not content for the project to go

ahead using the proposed pipeline route, because of the inconvenience and risk to shipping using the port. Nevertheless, they accepted that, if the Regulators decided on the basis of a risk and cost-benefit analysis that the project should be consented, ABP and the shipping using the port would have to accept the inconvenience and be aware of hazard.

Subsequent Response: ABP indicated that they were content that the MCA had made comments that addressed issues relating to navigation to and from the port of Barrow (and other Morecambe Bay Ports). Nevertheless, they retained concerns about the pipeline route and the Regulators might have to decide whether the necessity for strategic gas storage and the associated benefits would outweigh the inconvenience to shipping using the port of Barrow, the impact on anchorage in the port approaches and the risk of pipeline accident caused by ship's anchors. With regard to the nearshore section of the pipeline system, ABP indicated that they had no significant outstanding concerns regarding the crossing of the Walney Channel, but requested that the planning conditions imposed by BBC should be included in the relevant licences/consents (see "Conditions" below). They additionally confirmed that they required the co-operation of the dredging and pipe-laying contractors, to enable the channel to be cleared on occasions to allow the public right of navigation.

Regulators' Comment: MCA has provided recommendations in relation to the navigational risk, and are content with the proposal on the understanding that additional traffic studies will be undertaken during the construction and installation phases to establish the necessity for further risk control measures relating to the safety of navigation. This requirement will be addressed in the relevant FEPA licences and CPA consents (see "Conditions" below). DECC has confirmed that the requirement to locate the pipelines and cable systems at least 230 m from the Barrow approach channel will be a condition of the pipeline works authorisation issued under Part III of the Petroleum Act 1998

DONG Energy:

Initial response: DONG commented on the potential implications for the Walney and Barrow Offshore Windfarms, drawing attention to issues relating to the cable crossings, navigational impacts and cumulative impacts.

Subsequent Response: DONG confirmed that they had no further comments on the proposals.

Regulators' Comment: The issues raised were addressed in response to other similar representations (see above), and were the subject of an agreed exchange of letters of comfort between DONG and the Company.

Scottish Power:

Initial response: Scottish Power objected to the project on the grounds that the offshore cable/pipeline system had to cross the West of Duddon Sands windfarm power export cables.

Regulators' Comment: This issue was resolved by the Company agreeing to sign a crossing agreement with the West of Duddon sands developers in advance of commencing the construction works.

Mr G Mitchinson:

Initial Response: Mr Mitchinson indicated that he was opposed to the proposals due to the loss of fishing grounds, and that a fair compensation package should be put in place before any licences were approved.

Subsequent Response: Mr Mitchinson indicated that he was still opposed to the proposals due to the loss of fishing grounds, and because of the disruption that would be caused by the brine discharges and the noise during construction. He stated his boat was too small to work more distant fishing grounds, as suggested in the ES, and that if he was caught out in

a near-gale to the west of the development area he would have no choice but to run through that area, therefore putting himself at risk.

Regulators' Comment: The Regulators are satisfied that the issues of the brine discharges and noise have been adequately addressed. Although the issue of compensation is a matter that must be addressed directly with the Company, the latter will be strongly encouraged to discuss compensation and fisheries interference issues with the Eastern Irish Sea Windfarm Group.

Mr F Riding:

Initial Response: Mr Riding indicated that he was opposed to the proposals and that, before any licences were approved, a fair compensation package should be agreed for loss of fishing grounds, disruption and loss of earnings. His main concerns were the discharges of brine, and how this would affect fish populations in the area, the construction noise and the time it would take to complete construction.

Regulators' Comment: The Regulators are satisfied that the issues of the brine discharges and noise have been adequately addressed, and that the modelling of the brine discharges indicates that they will not have a significant long-term effect on the fish populations in the area. Although the issue of compensation is a matter that must be addressed directly with the Company, the latter will be strongly encouraged to discuss compensation and fisheries interference issues with the Eastern Irish Sea Windfarm Group.

Mr M Porter:

Initial response: Mr Porter objected to the proposal, as he would be losing an important fishing ground. In addition, he was concerned about the discharges of brine and the cumulative affects with the windfarm developments in the area.

Subsequent response: Mr Porter reiterated his earlier concerns, and confirmed that he objected to the proposals as he would be displaced from his fishing ground.

Regulators' Comment: The Regulators are satisfied that the issues of the brine discharges and cumulative impacts have been adequately addressed. Although the issue of compensation is a matter that must be addressed directly with the Company, the latter will be strongly encouraged to discuss compensation and fisheries interference issues with the Eastern Irish Sea Windfarm Group

Mr L Sheard:

Initial response: Mr Sheard indicated that he had concerns about the proposals, as the development would occupy productive fishing grounds. He was also concerned about potential in-combination effect with the Barrow, Walney, West of Duddon Sands, Burbo Bank, Gwyn Ty Mor and Shell Flats offshore windfarms.

Regulators' Comment: The Regulators are satisfied that the issue of cumulative impacts has been adequately addressed. Although the issue of compensation is a matter that must be addressed directly with the Company, the latter will be strongly encouraged to discuss compensation and fisheries interference issues with the Eastern Irish Sea Windfarm Group

Mr K McGuire:

Initial response: Mr McGuire indicated that he had concerns about the proposals particularly in relation to the area of seabed that would be taken-up by this and other operational and consented developments in the area. For example, the Barrow Offshore Windfarm (operational), the Walney Offshore Windfarm development (approved) and the Ormonde Project (approved), and the likelihood that both the West of Duddon Sands and Shell Flats offshore windfarms would be granted permission to proceed. He commented that productive fishing grounds would be lost for approximately 50 years, and this would therefore significantly affect the livelihood of future generations of fisherman. He also had

concerns about the discharges of brine and the noise impact on fish during the construction phase of the project.

Subsequent response: Mr McGuire indicated that he objected to the proposal, and that a funding/compensation package should be put in place prior to granting any licences/consents. He stated that the exclusion zone around the monopods would affect his business, and provided fishing tow information to demonstrate his history of working in the area. Mr McGuire indicated that he also had concerns over the burial of cables/pipelines.

Regulators' Comment: The Regulators are satisfied that the issues of the brine discharges, cumulative impacts and cable/pipeline burial have been adequately addressed. Although the issue of compensation is a matter that must be addressed directly with the Company, the latter will be strongly encouraged to discuss compensation and fisheries interference issues with the Eastern Irish Sea Windfarm Group.

DECC Consultation:

To comply with the requirements of the EIA Directive, the Agency and DECC are obliged to ensure that an environmental impact assessment has been undertaken for all elements of the project, including its use to inject / store gas. Given DECC's expertise in respect of the licensing of offshore energy projects, the Agency consulted DECC's Energy Development Unit (EDU) to determine whether the ES and supplementary information provides sufficient information on which to assess all the environmental effects of the project including the storage operation, and whether the application presents a technically competent project which can reliably be operated without causing environmental effects which have not been addressed in the ES.

DECC Response: The Licensing, Exploration and Development Directorate of EDU confirmed that the Energy Bill currently before Parliament provides for new powers to licence offshore gas storage projects. Assuming that Parliament enacts these powers in broadly their current form, they would expect that licences for such projects would be subject to subsequent consents from the Secretary of State for specific operations, including the operation of the storage facility; and would also be subject to his approval of the proposed operator. The project has not currently been considered in the detail that would be necessary in order to issue such a licence or any related consent or approval. In particular, further information may be required such as supporting evidence or independent validation from the developer before deciding any such consent or approval.

Subject to these points, and without prejudice to any future decision which may fall to be made by the Secretary of State, and on the understanding that the FEPA licensing decision is solely for the Agency to take, on the basis of the information available at present, the project appears to be technically competent; and the information provided appears to form a reasonable basis for the assessment of the environmental effects. Colleagues in the Offshore Environment and Decommissioning Directorate of EDU have already reviewed that assessment, as addressed in the ES and the supplementary information provided by the Company, and have confirmed that the assessment covers the full range of such effects to be expected from the construction or operation of the facility as described. Our conclusion is that the Gateway Gas Storage Project would not result, on its own or in combination with other plans or projects, in any unacceptable adverse effect on the marine environment, the living resources it supports or other users of the sea, or on the integrity of the Liverpool Bay pSPA.

DECC pointed out that their assessment does not take account of safety issues, which are matters for the HSE.

CONDITIONS

Following consideration of all relevant information, including the ES, the outcome of the consultation and the supplementary information, 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.

JNCC/NE:

If percussive (or hammer) piling is required (if drilling does not work), Marine Mammal Observers (MMOs) and 'soft start' protocols may be required, and there may be an additional requirement to use passive acoustic monitoring (PAM). Mitigation measures in relation to piling must be agreed with the competent authority and NE at least 4 months before construction begins.

The use of pingers may require the Company to obtain a wildlife licence from NE, who have further advised that if the Company wish to deploy an acoustic deterrent device they will need to make an assessment of the efficacy of using this device in order to justify its use.

A full monitoring programme must be agreed at least four months prior to commencement of construction.

Prior to the storage operation ceasing, a detailed decommissioning plan must be submitted.

CEFAS:

Any equipment, temporary works and/or debris associated with the works must be removed from the foreshore upon completion of the works.

Any coatings/treatments utilised must be suitable for use in the marine environment and used in accordance with best environmental practice.

Suitable bunding, storage facilities etc. should be employed to prevent the release of fuel oils, lubricating fluids etc associated with the plant and equipment into the marine environment.

Every effort should be made to minimise re-suspension of sediment during these works.

A Fisheries Liaison Officer must be appointed, to be approved by the District Inspector of Fisheries, Marine and Fisheries Agency, 9 Calder Court Shorebury Point, Amy Johnson Way, Blackpool, Lancashire, FY4 2RH (Tel 01253 362130, Fax 01253 362139). The Fisheries Liaison Officer will have the responsibilities as follows:

- (i) To be familiar with the conditions attached to the FEPA licences and CPA consents;
- (ii) To come to agreement with the Company as to the type of approach routes to be taken by the vessels, so as to minimise interference with fishing activity (this will be subject to approval by the District Inspector of Fisheries at Blackpool);
- (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 will be subject to approval by the District Inspector of Fisheries at Blackpool);
- (iv) To liaise with the fishing industry, in order to minimise conflict, and to advise on the timing of deliveries, the delivery route and any delays or halts of operation;
- (v) To report any loss of materials, equipment or machinery below MHWS to the District Inspector of Fisheries at Blackpool;

(vi) To satisfy himself/herself that any items so lost are recovered prior to completion of the works;

(vii) To liaise with the Company to minimise interference to launching and recovery of vessels on the beach; and

(viii) To report any incidents of conflict to the District Inspector of Fisheries at Blackpool immediately.

A Notice to Mariners must be published before work commences providing a description of the location and the timing of the work.

All operatives (barge master, bucket and grab operators etc.) must be made fully aware of the FEPA licence and CPA consent conditions and the safety requirements before transshipment work commences.

Precautions must be taken to minimise the risk of contamination of the water or foreshore from wet concrete/mortar products.

Four weeks prior to construction work commencing, the final methodology, including the design, final piling requirements and any requests for scour protection at the monopods must be submitted to the Agency for its approval.

During construction activities the disturbance to fish, cetaceans, seals and basking sharks should be minimised by operating soft start procedures for all drilling and or pile driving operations (methods to be agreed in advance with the Agency).

All chemicals utilised should be selected from the list of notified chemicals assessed for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002. Should any system other than a water-based mud be considered for use in the drilling operations, written approval and guidance on the disposal of any arisings will be required from the Agency.

All vessels used in the construction works must have suitable marine pollution contingency plans for spills etc. Practices used to refuel vessels at sea must conform to industry standards.

All reasonable precautions must be taken to prevent the disposal of man-made debris at sea. Such debris must be disposed of to land.

All drill cuttings must be disposed of within the Gateway Gas Storage Project disposal site (Agency Site Code: IS195).

A detailed plan on the location of the caverns and the order of construction must be sent to the Agency and CEFAS four weeks before construction commences. Any amendments must be made in writing to the Agency.

Sediment plumes should be monitored during construction and cable burial, and scour protection at the monopods must be monitored post construction. The details of such monitoring programmes should be submitted to the Agency and/or DECC (as appropriate), and to CEFAS, for approval prior to works commencing.

Reports of mitigation or monitoring activities must be submitted to the Agency and/or DECC (as appropriate) at the appropriate time (to be detailed in the relevant approvals) in order to allow the Agency and/or DECC to consider if any action may be required to mitigate or correct any adverse effects which may be identified.

The Company must be strongly encouraged to discuss compensation and fisheries interference issues with the Eastern Irish Sea Windfarm Group.

BBC:

No development shall take place within the area of the Piel Channel until the developer has

submitted a written method statement, incorporating proposed timescales and any appropriate illustrative material, for all those works necessary for preparation, construction, and subsequent maintenance of the proposed pipelines and cables. The statement shall include proposals for the submissions of hydrographic surveys at the following times: prior to works commencing, upon completion of the pipeline and cable laying works, and six months following completion of the works.

Between the toe lines of the navigation channel, the top of the uppermost buried pipe should be buried at a depth of not less than 12.8 metres below OD Newlyn or 2 metres below the deepest current scour depth, whichever is the greater, and shall not rise from the extremities of the channel toe line at a slope greater than the channel side slope design of 1:8.

All works associated with the installation of the pipes and cables across Piel Channel shall only take place during the months of April to September unless prior written consent is given for works outside that period.

RSPB:

The Company should draw up a boat management plan and restrict maintenance boats to the shipping lanes as far as possible.

Where possible, the maintenance of the monopods by boats should be concentrated into the quieter months for common scoter, i.e. May/June.

ABP:

Between the toe lines of the navigation channel, the top of the uppermost buried pipe should be buried at a depth of not less than 12.8 metres below OD Newlyn, or 2 metres below the deepest current scour depth whichever is greater. The pipeline is not to rise from the extremities of the channel toe line at a slope greater than the channel side slope design of 1:8.

The top of the pipeline should be adequately backfilled by an overlay of 1 metre of sand, further overlaid by 1 metre of stone armour scour protection, to give a clear depth of water of 9.8 metres below OD Newlyn.

The Harbour Authority must be provided with Hydrographic Surveys of the working area around the channel and tidal flats, immediately prior to commencement of dredging works, on completion of the pipelay works and six months after completion of the pipelay works, to identify any scour or siltation effects.

TH:

When constructed, the surface structures should be marked in the interests of safety of navigation. The marking of the monopods should be based on the marking set out in the UK Standard Marking Schedule for Offshore Installations.

A fog signal must be provided for each group of monopods for hazard warning purposes, to be sounded when visibility reduces to two nautical miles or less.

During any offshore construction, any jack-up vessel utilised should exhibit signals in accordance with the UK Standard Marking schedule for Offshore Installations. Any other vessels engaged in construction or maintenance operations should exhibit signals in accordance with the Colregs.

During any offshore construction, temporary marking may be required (for example by buoys around the site or some/all of the monopods) until the construction is complete and the permanent aids to navigation are operational. Once the details of the construction plan are finalised, the Company must discuss any temporary marking with the Agency and Trinity House, and must exhibit the agreed markings accordingly.

MCA:

The Company must ensure that additional traffic studies are carried out prior to the commencement of construction. The studies must be agreed by the Agency and the MCA, and the results subsequently sent to the Agency and the MCA for assessment.

REGULATORY EVALUATION**Conclusions:**

In considering the applications for the marine elements of the Gateway Gas Storage Project and, in particular the supporting ES and the additional information subsequently submitted to supplement that statement, the relevant provisions of FEPA and the CPA and the response 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.

The Agency and DECC, as joint Regulators, endorse the findings of the ES as supplemented by the additional information and, subject to the inclusion of the conditions referred to above in either the FEPA licences or CPA consents that they may grant in due course, are of the opinion that the marine elements of both the construction and operational phases of the project will not have a significant adverse effect on the environment.

Accordingly, taken together with the assessment made by the Planning Authority in discharging its duties in determining a Planning Permission in favour of the terrestrial elements of the same scheme, the Regulators jointly conclude that the Gateway Gas Storage Project as a whole will have no significant adverse environmental impact.

Recommendations:

Having carried out assessments of the potential environmental impacts of the proposed project, the reviewers acting on behalf of the Agency and DECC make the following recommendations:

The Agency:

The Agency is satisfied that the ES and supplementary information adequately addresses all environmental issues in relation to the Gateway Gas Storage Project, subject to the conditions referred to above being included in the relevant FEPA licences and CPA consents subsequently issued by the Agency.

DECC:

DECC is satisfied with the ES and supplementary Information submitted in support of the Gateway Gas Storage Project, and recommends that the ES should be endorsed as meeting the requirements of the relevant legislation. It is recommended that the pipeline and cable systems that are the subject of an application for a pipeline works authorisation under the Petroleum Act 1998 should be conditionally approved, subject to the submission and approval of a separate application (a PON15C) seeking a Direction from the Secretary of State confirming that a separate ES is not required solely to address the potential impact of the proposed pipeline and cable systems. It is further recommended that determination of the application for a Direction should be conditional upon the developer undertaking the additional pipeline route survey and monitoring work agreed with DECC, and including the results of that work in the application. It is further recommended that the Coast Protection Act consent for the pipeline and cable systems should include relevant conditions to address the navigational concerns, as discussed and agreed with the MCA.

The Agency / DECC:

The reviewers acting on behalf of both the Agency and DECC (the Regulators) noting that

the land-based elements of the project have separately been assessed and approved pursuant to the issue of Planning Consent, 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 Reviewers:

The Agency (MFA) - Samantha Horsey; DECC (EDU) - Inger Soderstrom

October 2008

Environmental Impact Consent Decision:

Having considered the analysis and recommendations of the Environmental Impact Assessment Reviewers above, an Environmental Impact Assessment Consent Decision is given in favour of the Gateway Gas Storage Project in accordance with Regulation 22 of the MWR.

Approved: 

Sarah Pritchard
Head of Environmental Operations, Energy Development Unit
On behalf of the Secretary of State for Energy and Climate Change

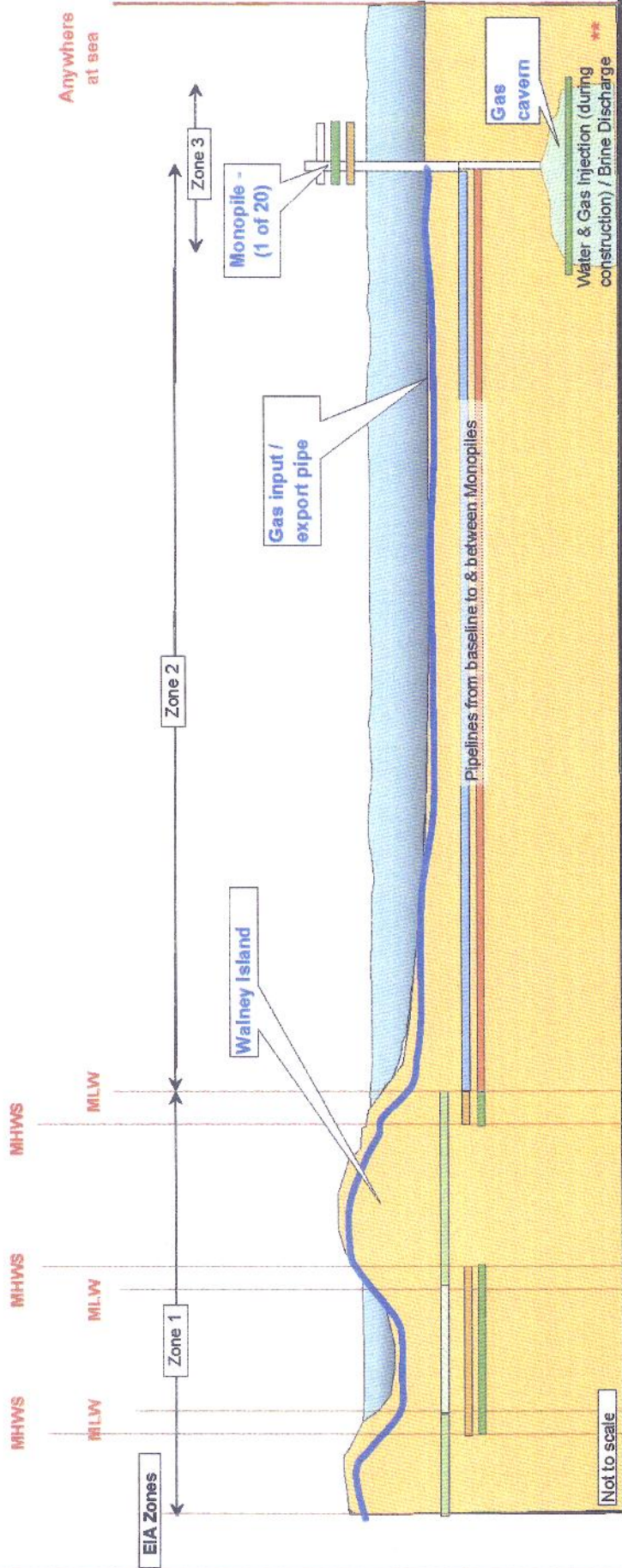
Date: 19th November 2008

Approved: 

Geoff Bowles
Head of Marine Development Control, Marine & Fisheries Agency
On behalf of the Secretary of State for Environment, Food & Rural Affairs

Date: 18th November 2008

Gateway Sub-sea Gas Storage - Consent Regimes



Application of EIA Regulations:

- | | |
|---|---|
| <ul style="list-style-type: none"> Zone 1: Town & Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 [& poss MWRs if area below MLW not covered] Zone 2: Pipe-line Works (Environmental Impact Assessment) Regulations 2000 Zone 2&3: The Marine Works (Environmental Impact Assessment) Regulations 2007 | <ul style="list-style-type: none"> Zone 1: Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 [& poss MWRs if area below MLW not covered] Zone 2: Pipe-line Works (Environmental Impact Assessment) Regulations 2000 Zone 2&3: The Marine Works (Environmental Impact Assessment) Regulations 2007 |
|---|---|
- Note: ** Gas Storage (operational) ???
- injection / discharge of gas during operations to be subject to Gas Storage Licence (DECC)

