# Extracts of Annual Reports (LNG) 2002-2006

Our Annual Reports provide not only a review of the financial position of the Authority in the shape of our audited accounts, but also explain the makeup and governance of the organisation, our strategic aims and objectives, a review of our business activity, and an identification of significant areas of development and issues that impact upon the port. Since 2002, when we received the first intimations of the LNG prospects, our subsequent Annual Reports have described and provided a summary of the work that we have been doing in planning for LNG shipping. As such, relevant articles extracted from these Annual Reports give a broad indication of the way in which the Authority has planned for LNG, working with others along the way, and also the various issues that have attended the developments as they have progressed and now are coming to fruition.

The full Annual Reports for the past few years are contained elsewhere on the website, what is outlined in this section are extracts of relevance to the LNG developments and the detail of the planning for handling LNG shipping.

# <u>Annual Report 2002-</u> Liquefied Natural Gas (LNG) Documents

Milford Haven has had a long and successful relationship with the oil industry. Indeed its advent was the reason for establishing the Port Authority over 40 years ago to support and regulate the shipping movements required.

There is a possibility that the Waterway and Pembrokeshire is on the verge of a massive leap ahead into a new era of welcoming and servicing the gas industry to run alongside the existing oil refining and storage activities.

Two companies, Petroplus and Qatargas/Exxon Mobil have applied for planning permission to construct LNG terminals on their respective sites in the Haven. In the case of Petroplus they have already received planning permission for a regasification plant and two storage tanks, each with a capacity of 165,000 cubic metres. They have more recently submitted an application for a third tank of the same size which would bring the import capacity up to 9 billion cubic metres per annum, around 6.5 m tonnes.

The Qatargas proposal, which has more recently been submitted for planning permission, is for a similar, albeit larger, facility to be constructed on the brown field site of the former Esso refinery, which closed down some 20 years ago. This would make use of the jetty which has remained as an integral part of the site and would be in two phases each of which handling 7.8m tonnes of LNG per annum, which equates to 1 billion cubic feet per day. Given that current UK demand is around 10 billion cubic feet per day each phase represents some 10% of current UK demand.

Associated with both projects is an extension of the high pressure gas pipeline that forms the National Transmission System into Pembrokeshire by Transco the operator of the UK's gas supply network.

LNG is simply natural gas which has been cooled to minus 160° centigrade to turn it into a liquid thus occupying around 600 times less space than taken as a gas. This makes it more economic to both store and transport by ship across long distance. Whilst the UK has been self sufficient in natural gas since the late 1960s as a result of production from the UK North Sea - indeed for many years the UK has been an exporter of natural gas – the situation is now changing. With output declining from the North Sea and UK demand increasing, there is an growing supply gap meaning that the UK is likely to become a net

importer of natural gas by 2006 and very soon thereafter be relying on imports for most of its supplies.

The facilities on both the Petroplus and Qatargas/Exxon Mobil sites in Milford Haven would be for storage and re-gasification to allow the gas to be put through into the National Grid.

The Authority has been working very closely with the marine advisers to both projects in assessing the feasibility of LNG vessels transitting the Haven and berthing at their proposed jetty berths with suitable modifications. This assessment has included periods using simulators, where a variety of possible situations including different ways of approaching the berth; various sizes of ships; different weather and tidal conditions, etc., have all been able to be trialed. The conclusion is that the identified and agreed means of navigation and operation more than adequately contain the risk associated with handling these vessels.

The port's infrastructure systems procedures and expertise are well suited to handling these large vessels which, even if both projects come to fruition, would only provide an increase of around 10% on existing shipping traffic and movements. Nevertheless this would be a welcome and significant increase in the Authority's business activity.

From the commercial point of view, there is benefit to the Authority and others involved in the marine service community in the Haven from not only an increase in the traffic that such a development would bring but in the diversification into a different sector of the oil and gas industry, utilising as it will the infrastructure and expertise that is already contained in managing one of the UK's largest oil ports. Such diversification is important to the Authority and also the wider community in lessening the dependence of a single sector within the industry eg. oil refining.

From the wider community point of view we also recognise the benefit that these projects will bring not only in respect of employment through construction and subsequent operation but also as a catalyst for further economic development with the extra energy resource and infrastructure that would be associated with it.

A potential new and bright future awaits the Authority and Pembrokeshire if these projects come to fruition.

## <u>Annual Report 2003</u> Milford Haven - Managing our Future

#### The role of ports

Ports are an essential but understated and, in many senses unrecognised part of the UK economy which relies on ports for around 95% of its physical trade. The UK has the largest ports sector in the EU and the Government has recently confirmed that it fully recognises the vital importance of the ports sector to the continued economic well being of the nation. The challenge for ports such as ours is to ensure that that statement is translated into positive support!

Thus many ports play a significant role on both a national and regional level, operating not only as commercial entities in their own right in an extremely competitive market but also an economic provider or catalyst for many areas and parts of the economy.

#### Our port

The port of Milford Haven, the 5<sup>th</sup> largest port in the UK and the largest in Wales, certainly reflects this position and furthermore being a trust port with no shareholders requiring a dividend, actively seeks to play a very supportive and developing role in the economy of Pembrokeshire and West Wales.

The Port Authority was established in 1958 to support the advent of the oil industry into the Milford Haven Waterway. Whilst over the intervening years a number of refineries have been established, not all have stayed but the port's main shipping facility is still related to the oil industry serving the needs of the ChevronTexaco and the Total refineries and the oil terminal at Petroplus. In 2003, 48 million gross tonnes of shipping used the port of which 51% was of tankers using the oil terminals. The majority of the rest, some 48% or 23 million gross tonnes of shipping reflects the use of the port by Irish Ferries on its twice-daily ferry service between Pembroke Port and Rosslare. The balance consists of a small amount of general and project cargos making use of Pembroke Port.

#### Our role

Milford Haven has long recognised its heavy dependence on the oil industry and having experienced closures of the Esso refinery, the BP terminal and, more recently, the Gulf refinery, has deliberately sought to grow and expand its business in a policy of profitable diversification so that it is better able to withstand the significant step changes associated with any closure or indeed establishment of an oil terminal. This has also had the extra benefit of serving the Authority's policy of supporting regional economic development in the growth of jobs and economic activity within the Authority's operations and the spin-off that many of these have had into the local economy – eg. over the past 10 years some £40m have been invested by the Authority which has seen its own workforce grow from around 120 to over 240 and also indirectly supported well over 200 other jobs being created as a result of such investment.

#### Working in partnership

The acceptance of such a role brings with it the very necessary requirement to work closely with a wide range of Government and other bodies to achieve the objectives of the Authority and maximise the beneficial impact it can have in the wider economy. Thus whilst the Westminster Government remains responsible for ports policy and regulation in Wales, the Authority also has close links with the Welsh Assembly, Pembrokeshire County Council and agencies such as the Welsh Development Agency, the Wales Tourist Board, the Environment Agency, Countryside Council for Wales, Pembrokeshire Coast National Park etc..

Where there is a commonality or overlapping of interests with such bodies, then the partnership developed with them can be a very powerful and effective means of achieving results that have a much wider impact than if pursued in isolation. Even if on occasion there are conflicting requirements or objectives, their negative impact can be mitigated through working closely with a wider partnership.

#### LNG developments

As an example of a potential development that will bring significant benefit to the UK economy as a whole let alone that of West Wales and Milford Haven Port Authority, are the two proposals to establish Liquefied Natural Gas (LNG) terminals in the Waterway. The first of these is by Petroplus and their partners British Gas and Petronas who are looking to establish a terminal with the capacity for 3.5 million tonnes and the second by Qatargas (a partnership between Exxonmobil and Qatar Petroleum) to establish a terminal on the site of the former Esso refinery with more than twice this capacity. If both these projects come to fruition as currently planned with the first ships arriving in 2007 then by 2009 some 30% of the UK's gas requirements will be brought in through the port. The challenge here of course if a complex one of working closely with each of the proposals to identify the ways in which the shipping can be safely and effectively managed. The fact that Milford Haven is a major oil port with deep water and systems and procedures in place for handling the very largest ships is of course one of the reasons why the Waterway was considered for these terminals in the first place.

### The environment

The various regulatory requirements are of course to be met and there is also the need to address the environmental concerns that naturally come to the fore with any such large development but particularly so in a county such as Pembrokeshire which has high environmental value.

On a wider front, achieving a balance between the needs of the environment and that of the economy is central to many ports current operations and future plans. Certainly many are situated in environmentally sensitive areas and indeed Milford Haven Waterway is designated as a Special Area of Conservation under the EU Habitats Directive. The Port Authority has a statutory responsibility to protect the environment but also of course to facilitate and regulate the safe use of the Waterway. This again demands effective partnership and there are a number of ways in which some improvements could well be made.

#### Improving the competitive position in Europe

The UK ports industry is extremely competitive and therefore efficient and cost effective as a consequence. Some of this competition of course comes from European ports, many of which receive a degree of public funding or regulatory support that distorts what should otherwise be a level playing field. Two examples serve - the first that of the application of the Habitats Directive which in the UK is applied correctly within the terms of the Directive to shipping channels within site boundaries. In other European countries however, including France, Belgium, Spain, Germany and Holland, shipping channels are in many cases excluded from the designation. Whilst it is of course correct that the Habitats Directive does not necessarily prevent port development of expansion, the extra degree of protection it quite rightly gives to environmentally sensitive areas is one that has to be overcome in such UK ports with implications of extra costs and significant extra delay which are significantly absent in many continental ports.

On a similar basis, light dues in the UK are borne by shipping using UK ports whereas in many continental ports the costs of marine aids to navigation are borne by the state.

#### Our need for better roads

Ports act as intermodal transfer points. They depend very heavily for success on the transport infrastructure serving them. In the case of Milford Haven this is (and being realistic will always be) primarily roads as rail can only ever play a very small part in this part of South West Wales given the existing funding and support structure. In this respect, Milford Haven like other ports relies very much on the attitude of Government to provide transport infrastructure to support the needs of the port. In this respect at Milford Haven we are very supportive of the proposal to make the A40 into a dual carriageway to improve communication into the county and, with other partners, show concern that this vital boost to the local and the port economy appears to have slipped in the priorities of the Welsh Assembly Government.

#### Security - a new challenge

Another change currently facing all UK ports is that of meeting increasingly stringent requirements for security with the ISPS Code (International Ship & Port Facility Security Code) coming into operation later this year, and EU framed requirements running alongside. Whilst having operated a ferry terminal serving services to the Republic of Ireland for over two decades, the Authority is well aware of highly competent at operating security procedures, the new Code will extend this approach to a much wider range of operations requiring some significant expenditure by the Authority, extensive new procedures with requirements for training many members of staff and, of course, very close working with the variety of agencies that have a direct or indirect interest in security.

#### Safety - a constant challenge

In a similar manner, safety has been pushed up the political agenda in the view of ports over the last few years with the ports industry having been highlighted by the HSE and by the Government as one which was falling behind the standards that would be expected. Thus the application of the Port Marine Safety Code has been a high priority for the Authority over the past few years and indeed we were one of the first to adopt a Safety Management System based upon a full risk assessment of all our operations, the only difference being that Milford Haven decided to adopt that approach across all its activities and not just those related to its marine operations. This approach is now ingrained in the way in which we operate and has enabled us to demonstrate compliance with not only the Code itself but also to consistently beat the benchmarks adopted by the industry in a response to criticism about its accident rate and the need to introduce measures such as training, codes of practice, definition of competence standards and the measurement and reporting of accidents and incidents.

#### Our business performance

As a business we have to meet the constant challenge of operating effectively and profitably and seek to measure the impact of our performance in a process of constant improvement. We have targets, for example, in respect of new developments such that we expect a financial rate of return of 6% for investments and development that relate to our core responsibilities of maintaining and managing the marine activities; of some 12% for our more commercial activities such as operating the marina, developing property and for those areas of investment that that could be considered as beyond our current business, an even greater return of 20% or more to reflect the greater business risk associated with them. Thus some successes have been, for example, the partnership in developing Phoenix Bowl which

provides an all year round ten pin bowling facility in a converted warehouse in Milford Docks, the investment we took in Ledwood Mechanical Engineering Ltd, a local company who had gone into Receivership, which secured that business on the Waterway and as a customer of the port to a recent acquisition of CETO Environmental Ltd, again from the Receiver to expand the business of D V Howells Ltd, a subsidiary of the Port Authority which specialises in incident response, both at sea and inland.

The Authority was also one of the first successful applicants to obtain funding through Objective 1 and in the final stages of completing a formally and planned development of high quality offices in Milford Docks that will bring in a positive revenue stream; significantly improve the built environment of the Docks and also bring upwards of 200 new jobs into the area.

#### Management of risk

The Authority is very aware of its responsibilities in operating a major oil port but here again some of the risks and problems encountered require action by Government which appears to be slow in arriving, if it ever will. The significant outstanding issue from the Sea Empress incident which awaits Government resolution of which there is yet no sign of progress is outlined in more detail elsewhere in this report.

Thus there are many challenges facing a port and certain ones such as Milford Haven. They form the very nature of the UK ports industry and the fact that we have one of the most successful port sectors in the EU and that similar success can certainly be demonstrated by Milford Haven over the years is an indication of the success with which ports can and do manage such challenges.

#### In conclusion

Increasingly however with greater Government interference and regulation, the expectation of society, and the ever increasing raft of EU requirements, there is a need for increased and improved partnership to ensure the best is made of such an important sector to the UK's economy.

At Milford Haven we can demonstrate the value and benefits that can be brought about as a result of effective partnership, particularly with the significant opportunities with LNG that lie ahead.

## Annual Report 2004 – The Safe Management of LNG Shipping

With the development of two LNG (Liquified Natural Gas) terminals in the waterway Milford Haven is on the threshold of leading the UK into a new energy era. West Wales is about to benefit from a massive opportunity to develop a world-class, long-term industry which will provide well-paid, secure employment.

Whilst most are responding positively to the opportunities that the development of these two LNG terminals will bring, there remains a small but petulant voice of opposition, based largely on ignorance, an unwillingness to listen or principled opposition to any form of industrial development.

Time, then, to set out the situation as it really is from the point of view of the Authority.

#### The Terminal Developments

Two terminals are being built on the shores of the Haven. Petroplus, with their partners BG and Petronas, are constructing the Dragon LNG Terminal on their existing site, using their existing jetty. Three LNG tanks and a dedicated LNG ship berth will be built which will receive around 4 million tonnes of LNG a year. During construction, which will take up to 2007, up to 500 jobs will be created, many of them for local people. When in operation, 24 jobs will be created on the site.

Qatargas (a partnership between Qatar Petroleum and Exxon Mobil) is developing the South Hook LNG terminal on the former Esso refinery site, making use of the existing jetty. Three storage tanks will be constructed initially, with another two some two years later. Each phase will provide a throughput of seven million tonnes a year. During construction, up to 700 will be employed, and once in operation, around 50 permanent jobs will be available.

Additional opportunities will be created in the local economy for companies supplying goods and services, not least for the shipping aspects which we as a Port Authority will deliver and co-ordinate in the form of tugs, launches, pilots, lineboats, bunker vessels and stores barges.

Both projects will be substantially larger than typical facilities worldwide, and when on stream, around 30% of the UK's gas

consumption will be coming through Milford Haven, putting us at the forefront of the industry in the country.

The value of this development for Milford Haven is that LNG will play a major role in meeting the demand for natural gas in the UK in the future. It is a clean burning and environmentally friendly fuel that can be cost-effectively delivered for power generation and industrial, commercial and domestic use, and its demand will continue to grow.

#### Shipping LNG

LNG - Liquefied Natural Gas - is, as the name implies, a natural gas in liquid form, produced by cooling the gas to minus 160 degrees Celsius. Since LNG takes up only about one six-hundredths of the volume of the natural gas from which it is made, shipping LNG long distances from a producing country to consuming countries becomes an economic proposition. It is shipped via specially engineered LNG tankers, and off-loaded into the receiving terminal, where it is turned back into a gas for delivery into pipelines for distribution and sale to gas customers.

The ships which will bring the LNG to Milford will fall into 2 size categories. Firstly there will be existing vessels carrying around 145,000m3 of LNG around 250m long, 40m beam and 12m draught. Secondly new build vessels carrying around 200,000m3 and approximately 300m long, 50m beam and 13m draught. Large ships certainly but no larger than many of the carriers that bring crude oil to many of the refineries around the UK including Milford Haven.

There has been much speculation and scaremongering about the safety of these vessels, but history shows very few incidents involving LNG ships. They are well manned and run to the highest standards. The LNG industry has an exemplary safety record, due to stringent design requirements and high standards of operation and maintenance.

LNG is not a new, untested product. It has been safely delivered across the oceans for over forty years – currently, there are over 135 LNG ships in active service handling some 120 million tonnes of LNG every year. In the last forty years, there have been over 33,000 LNG voyages covering more than 60 million miles without major accidents or safety problems - either in port or on the high seas. (Source: 'Introduction to LNG', University of Houston, Institute for Energy, Law and Enterprise, January 2003, page 23).

UK ports were in the forefront of handling LNG shipping in the 1960's although with the advent of gas from the North Sea fields being brought in by pipeline this business fell away. It is now coming back and the first LNG ships for many years started a regular service into the new LNG terminal on the Isle Of Grain in the Thames estuary in the summer of 2005. Milford Haven will follow suit in two years time.

#### Managing LNG Shipping

In common with all other UK ports, we have a duty to accept all those who wish to enter the port. We do not have the ability to deny entry to any vessel except in very specific circumstances. Thus, our responsibility is to determine the way in which we manage ships and other uses of the Waterway so as to identify risks and in the way in which we regulate water movements, mitigate or remove such risks entirely.

Thus, given the fact that LNG ships will be using the Waterway from the third guarter of 2007 our approach has been to work alongside the technical teams of both developers so that we get an understanding of what their shipping needs are, and also feed into them our own comments and requirements so that they can be incorporated into their planning. We have identified a wide range of scenarios which we have then tested within the framework of our Safety Management System, the basis of which is that all activities are underpinned by a comprehensive risk assessment. Such scenarios and risks have been tested in a variety of ways through both internal and external discussions and analyses: the use of simulators at the Maritime Research Institute (MARIN) in Holland and also the Nautical College in Fleetwood; visits that members of our Marine team have made to various LNG facilities and ships; the commissioning of various reports from specialists and a detailed and continuing dialogue with all those involved.

In particular we have researched, assessed and identified such factors as the capacity of the Haven to accommodate traffic increases, the stages of tide at which LNG ships will be allowed to move; the circumstances relating to the number and size of tugs, the number of Pilots, and weather conditions that will allow or prevent movements; the need for any modifications or changes to the navigation marks or facilities that we have in the Haven; any changes required to the navigation channels with deepening or widening; and a similar approach to turning areas. We have also taken into account the appropriateness of current security provisions under the Security Plans that we have for controlling our facilities which are approved by the security arm of the Department for Transport (TRANSEC), and will be making modifications to these where necessary to meet TRANSEC's own assessment. We have also identified the need to revise and update our emergency response plans, and have entered into dialogue with the Fire Service, the terminal operators and the emergency response division of Pembrokeshire County Council among others.

As part of this process we have undertaken simulation tests with the Marine Research Institute in Holland and at the Nautical College in Fleetwood and made specific recommendations about navigation and procedures to minimize hazards. We have visited LNG tankers and ports handling them, sought views and had the active participation of our pilots and obtained advice from consultants about potential hazards.

This active role in the process of assessing risks has been undertaken in accordance with our safety and risk assessment duties under the Port Marine Safety Code, and is a continuing one – identifying risk scenarios, testing them and then determining management measures. Overall, we believe the identified and agreed procedures and means of control over navigation more than adequately contain the risks associated with handling these vessels.

We have been concerned at the ways in which some of those who are opposed to LNG for whatever reason have been presenting what they promote as the public risks associated with it – often through very selective and partial use of information. To assist us in presenting a more balanced view on this we commissioned Lloyds Register to assess the relative likelihood of various accidents that could feasibly occur to LNG shipping in Milford Haven, and to express these likelihood in terms that could be readily understood by nonexperts. The conclusions reached were that for example, that a pool fire from any ship, including an LNG ship large enough to potentially injure people nearby is as likely per year as being killed by lightening. Their summary conclusion was that:

"The likelihood of an LNG incident is extremely low. There has never been a recorded incident of a major release of LNG from a ship to external atmosphere. Similarly no member of the public has ever been injured by LNG from a ship."

#### The Future

The vigilance that we and other organisations have maintained in the planning phases for LNG will not stop once things are under way.

Every ship will be checked for safety before it comes anywhere near the Haven by the Maritime and Coastguard Agency and Class Societies, and by the charterers of the vessels themselves. As a Port Authority, we will maintain tight controls and jurisdiction over vessels coming in and out of the Haven, and will continue to conduct informal random ship visits. Part of our acceptance criteria is that LNG (and of course all other) ships demonstrate that they fully comply with all requirements and we can, and will prevent entry if we consider any vessel does not so comply or is deemed in any way not to be safe.

We look forward to moving from being one of the major oil ports in Northern Europe to being a major oil and gas port in which the safe and efficient management of all shipping and water activities continues to be at the heart of our approach.

## Annual Report 2005 – Milford Haven Port Authority and LNG Shipping

In common with all other UK ports, we have a duty to accept all those who wish to enter the port. We do not have the ability to deny entry to any vessel except in very specific circumstances. Thus unlike planning authorities who go through a detailed process of investigation and appraisal to arrive at a yes/no decision, our whole approach is to determine the way in which we manage ships and other uses of the Waterway so as to identify risks and in the way in which we regulate water movements, mitigate or remove such risks entirely.

Thus, given the fact that LNG ships will be using the Waterway from the third quarter of 2007 we have been undertaking a considerable amount of work over the past three years in planning for the way in which we will incorporate LNG shipping within the mix of other traffic, ships and operations in what is already one of Northern Europe's largest oil and gas ports. In this we have been working alongside the technical teams of both developers so that we get an understanding of what their shipping requirements are, and also feed into them our own comments and approach so that they can be incorporated into their planning. This process has identified a wide range of scenarios which we have then tested within the framework of our Safety Management System, the basis of which is that all activities are underpinned by a comprehensive risk assessment. This complies with the requirements of the Port Marine Safety Code which applies to all UK ports and for which the policy is laid down by the Department for Transport in consultation with the industry and monitored by the Maritime and Coastguard Agency.

The scenarios and risks identified have been tested in a variety of ways through both internal and external discussions and analyses; the use of simulators at MARIN in Holland and also Fleetwood; visits that members of our Marine team have made to various LNG facilities and ships; the commissioning of various reports from specialists and a detailed and continuing dialogue with all those involved.

In particular we have researched, assessed and identified such factors as the capacity of the Haven to accommodate traffic increases, the stages of tide at which LNG ships will be allowed to move; the circumstances relating to the number and size of tugs; the number of Pilots, and weather conditions that will allow or prevent movements: the need for any modifications or changes to the navigation marks or facilities that we have in the Haven; any changes required to the navigation channels with deepening or widening; and a similar approach to turning areas. We have also taken into account the appropriateness of current security provisions under the Security Plans that we have for controlling our facilities which are approved by the security arm of the Department for Transport (TRANSEC), and will be making modifications to these where necessary to meet TRANSEC's own assessment. We have also identified the need to revise and update our emergency response plans, and have entered into dialogue with the Fire Service, the police, the Maritime and Coastguard Agency, the terminal operators and the emergency response division of Pembrokeshire County Council among others.

As a consequence of these studies, a number of measures will be implemented. For example, the channel is to be widened to provide greater separation of ships in the Haven; while LNG carriers are unloading the traffic speed of passing ships in the Haven is to be reduced; a minimum of two pilots are to be aboard LNG vessels entering the Haven; the existing fleet of tugs is to be augmented with new state-of-the-art tugs equipped with the latest technology. It should also be stresses that this is very much an iterative process which is constantly being refined to ensure the optimum procedures are in place to facilitate the safe and efficient handling of LNG vessels, indeed all vessels utilising the Haven.

#### Explaining our approach

The above is a description of the actual assessments and studies. We have also explained our approach in more general terms to a wide range of enquirers over the past three years. We have explained that we have researched, assessed and identified such factors as:

- the capacity of the Haven to accommodate traffic increases
- the way in which LNG ships will be allowed to move according to the state of tide;
- the number and size of tugs they will need;
- whether those tugs should provide active escorting (coming in with the tanker with a line attached);
- the number of pilots per movement, the number of pilots to be employed in total;
- identifying the training programme required for our pilots and others;
- weather and tidal conditions that will allow or prevent movements;

where ships will swing to get onto a berth;

- the need for any modifications or changes to our navigation aids such a buoys or other facilities;
- any changes required to the navigation channels or turning areas themselves.
- we have fully taken into account any implication from LNG shipping with the security plans that we now have in place in compliance with the ISPS code (International Ship and Port Facility Security code)
- we have assessed the need to update our various response plans and capabilities, and the need for and process of consultation and working with other authorities and agencies.

### The responsibility and role of MHPA

This can be best summarised by the clear statement from the judges involved in the application by opponents of LNG to seek a judicial review of the planning consents. In arriving at their decisions to reject the applications in both the initial court application and the two subsequent Appeal Court hearings the judges had a clear understanding of what was expected of the port authority – in the context of the planning applications as well as generally.

Thus MHPA is the statutory body responsible for controlling the use of the Haven and for ensuring the safety of operations and navigation within the Haven. MHPA was satisfied as to the safety of the terminal proposals so far as its own sphere of responsibility was concerned and PCC and PCNP the planning authorities were entitled to rely on this specialist advice.

The judges made the additional comment that what MHPA needed to concentrate on above all else was the risk of a collision with or between LNG ships and that this is what had been done.

The judges also identified the fact that MHPA has powers that if at any time it appears that the risks are greater than would be acceptable it can use to manage ships and loading/discharge operations at the jetties appropriately.

### Summary

From the above it is quite clear that the Authority has undertaken and facilitated a detailed assessment of marine risks involved in the LNG proposals. It has given informed advice to the LNG developers, to the Planning Authorities and to the HSE in respect of the decisions which they have taken. Further, it is stressed that in accordance with its continuing duties to operate a safe port, the Authority's processes provide for continuing monitoring of existing operations, identification of changed circumstances or potential new areas and as an embedded element within our operations the application of risk assessment and mitigation measures to ensure that the port continues to operate safely and efficiently.

# <u>Annual Report 2006 - LNG Risk Assessments</u> and Public Information

Milford Haven Port Authority (MHPA) has been working closely with the two LNG terminal developments, South Hook LNG and Dragon LNG, for the past four years in planning for the way in which LNG ships will be managed alongside all the other shipping and other users of the port when they start arriving from the end of 2007

MHPA has also been directly involved with the planning authorities (Pembrokeshire County Council and Pembrokeshire Coast National Park), the Health and Safety Executive, the Maritime and Coastguard Agencies and other bodies in supplying information, advice and comment to assist those organisations in fulfilling their responsibilities in respect of these significant LNG developments.

An important part of this process has been a long and detailed programme of public consultation and information that MHPA and in many cases the other bodies mentioned above, has undertaken from the very beginning of this process to explain and inform the public what we are doing, the reasons for our approach and the conclusions reached. We recognise that there are concerns and questions that need answering and have always responded to these when put to us, and will continue to do so, and sought to anticipate such concerns in the information that we have made available in a variety of ways over the past three years.

We also recognise that there are those who are opposed to LNG for whatever reasons (some of whom have tried, and failed on a number of occasions, to seek a judicial review of the planning consents) and who seek every opportunity to foment public concern. One of the oft heard allegations is that because the full details of risk assessments have not been publicly issued this means that MHPA has failed to undertake adequate risk assessments of LNG shipping at all. This is absolutely not the case as in fact a comprehensive range of detailed and professional risk assessments have been undertaken.

Thus this "demand" that we release all documents simply shows ignorance or wilful misrepresentation of our position on the part of those making such calls, as we have been quite clear on this for a long while now.

This paper seeks to consolidate an explanation as to why MHPA has approached this planning in the way that we have and provide an understanding of what has been achieved and the reasons why we have concluded that we are confident that LNG shipping can be handled safely and efficiently in the port from the end of 2007.

As well as making use of work carried out or commissioned by others we have ourselves undertaken or commissioned from experts many risk assessments as part of the process of determining the way in which we will regulate and manage LNG ships when they start to use our port from the end of 2007.

This work has involved our own staff including marine managers and pilots, the use of simulators at the Marine Institute in Holland and in the marine college in Fleetwood, the commissioning of studies and reports from experts and consultants, and working closely with the marine technical teams of both projects.

It is not a process that provides a single answer that results in a decision as to whether we will handle LNG ships or not as users whether commercial or recreational have a right to access the port provided that there is the physical capability of accommodating such use and that the user is prepared to pay the relevant charges and dues for doing so. So our risk assessments and analyses are not designed to determine whether we will handle such ships (that is not an option except in particular circumstances where a ship poses a danger because of its condition or that of its cargo and for which there are already in place regulatory procedures to monitor and verify and legal powers to enforce) but rather how we will handle them.

The results of such risk assessments and parameter testing that we have undertaken and commissioned has, for example enabled us to determine:-

- the capacity of the port to accept this increase in traffic (we have at least 20% spare capacity well able to accommodate the 6%-7% increase that LNG shipping will provide when both terminals are operating at full capacity)
- the number of pilots per ship (2),
- the number of tugs for each ship movement (4, all larger than existing tugs and one of which will actively escort),
- the weather limits (not in winds of more than 25kts),
- the location and dimensions of the turning areas to be used in manoeuvring on or off the berths (one existing one widened slightly, one new one to be created, another new one identified for future developments),

- the navigation marks required (new buoys in new positions currently on order),
- the areas and extent of dredging to widen the channel for passing ships (undertaken last summer),
- the validity of continuing with the existing systems of moving exclusion zones around ships in transit and 100m control zones around the jetties,
- the speed limits on ships passing occupied LNG berths (confirmed after an independent and detailed risk assessment),
- the provision of a guard tug when LNG ships are at berth,
- the training programme for pilots and ships crews making use of simulators,
- the introduction of a slot booking system for all commercial shipping,
- the updating of the ports pollution plan and its emergency response plan,
- working with the response services and the civil contingencies authorities to update their plans,
- revising the port security plans, testing all such plans in exercises,
- risk assessing the continuation of the small boat passages under the jetties (and concluding that they should continue to operate)
- among many other preparations and assessments including incorporating the characteristics and properties of LNG as a cargo into our assessment and planning.

So there is not one single risk assessment that provides a go/- no go answer but rather a myriad of separate but interlocking assessments that are undertaken in determining how we will manage and control LNG shipping along with all other shipping and leisure craft movements in the port. In this it is no different to the procedure followed for all this other port activity, and furthermore such assessments and procedures are regularly reviewed and retested on a regular basis to both take into account any changing circumstances and verify their continuing currency. It is therefore impractical and counterproductive to even consider releasing all this documentation into the public domain – filing cabinets full of it. Each element needs to be understood in the context of the whole and therefore MHPA has taken the deliberate policy of publicly explaining and demonstrating the approach, process and conclusions of all this work as the responsible and effective way of demonstrating the way in which we are preparing for LNG shipping.