SULPHUR CONSULTATION RESPONSES – IMPACT ASSESSMENT

Respondent	Date received	Summary of Comments	Response
Swiss Marine	08/05/14	(See Regulation table)	
EGCSA	13/05/14	Many Scrubber manufacturers have ensured that monitoring of systems is a design feature to ensure compliance.	This is a minor amendment which has been reflected in the IA. (MCA)
Class NK	21/05/14	(See Regulation table)	Noted.
Nautilus International	04/06/14	Regarding the availability of low sulphur fuel, Nautilus refer to paper MEPC 66/4/18 jointly submitted to the IMO by the Netherlands and the UK which states 'Currently the signals received from the market do not suggest there will be problems with the availability of low sulphur fuel in 2020. The analysis by some refineries shows the refining capacity in 2020 will actually exceed the demand and thus reduce the price for diesel.' With this in mind Nautilus anticipate that ship owners will not have any significant issues in sourcing compliant fuel and therefore, the number of vessels granted an exemption under paragraph 7 of the draft MSN would be very low. (See also Regulation table)	These comments have been reflected in the IA where appropriate
MOD - Defence Safety Environment Authority	12/06/14	(See Regulation table)	Noted.
UK Chamber of Shipping	18/06/14	***Costs associated with fuel switching*** Do not accept that the costs associated with fuel switching have already been met They believe availability of low sulphur fuel is likely to be a financial issue and the reasons are detailed in their response. They are not aware of any other costs that have not	These comments have been reflected in the IA where appropriate Noted. Noted.

		been taken into consideration.	
		Whilst they do not believe that there will be problems of fuel availability in 2015 to meet the requirements of the ECAs, they understand it is unlikely that UK refineries will be able to meet the demand and that the majority of the required 15 to 50 million tonnes per year will have to be imported, mainly from Russia.	Noted.
		Fuel premium The figures and methodology used within the Impact Assessment (IA) seem entirely reasonable.	Noted.
		Fuel consumption The figures quoted in the IA with respect to the expected impact of the Energy Efficiency Design Index (EEDI) (20 to 35%) are agreed.	Noted.
		The IA does not take the SEEMP into consideration.	The IA has been amended to take this into consideration as far as practicable.
		Costs associated with fitting scrubbers General concern about the cost and concern about scrubber technology both from a reliability and regulatory point of view.	Specific costs have been factored into the IA where possible in line with other comments.
		Must consider the need to ensure ports provide adequate port reception facilities.	
		Monetised costs for the UK shipping industry Express concern about the likely modal shift as evidenced in the AMEC report. Their response provides details of various routes.	This issue has been raised by a number of consultees and has been reflected in the IA where necessary.
		Concern is expressed about the societal impacts and consider that a greater number of jobs may be at risk than the figure quoted.	
		Alternative fuels Agree alternative fuels are an attractive option but	Noted: The need for certainty is

		question the infrastructure in place to support the move. Also may be regulatory concerns which will deter investors. ***Health benefits*** Fully support measures aimed at improving health of citizens. ***Other benefits*** Agree with the environmental benefits but point out the need to recognize negative environmental impacts such as those quoted in the AMEC report eg congestion, infrastructure, accidents, local air quality etc. ***Enforcement*** Enforcement should be both appropriate and the penalties proportionate. ***General comments*** Question who the 'polluter' is with respect to the 'polluter pays' principle. They consider the IA paints shipping in an unfavourable light. Need to clarify what is meant by European waters. The Chamber sets out in its response its strategy for transitional arrangements. They want a short defined transition period ending on 1 January 2020.	recognised. Noted. Noted. The SI follows normal statutory penalties – however, there is the option for cases to be referred to the crown court where the penalties may be more severe. The 'polluter' will be the shipping industry as they are the ones burning the fuel. This is not intended as prejudicial language. This has been reflected in the IA where appropriate. There is no scope in MARPOL or the Directive to adapt the transitional arrangements. Noting the Chambers concerns a significant additional section has been added to the IA addressing this.
Lloyds Register – External Affairs	19/06/14	(See Regulation table)	Noted.

DFDS	23/06/14	**Section 1.5 paragraph 2** states the negative impacts due to acid rain. DFDS point out that EU document "COM *(2013)* 918 final" concerning the clean air program for Europe, states *"The acid rain ("acidification") problem has been broadly solved in the EU, thanks to a substantial reduction in emissions of the main pollutants involved"*	The widespread success in reducing sulphur has resulted in significant health improvements. This does not mean that shipping does not have to also make reductions.
		Section 1.6 paragraph 2 refers to "unrefined fuel" which they believe is the same as crude oil. They refer to a 2005 report which states that the shipping sector is expected to be responsible for over 50% of sulphur emissions in the EU by 2020. The source for this information is a report published in 2005 that does not take in to account the additional restrictions imposed on shipping in the period between the report and current date. During this period shipping, with in the SECA area, has been subject to a 70% reduction in the sulphur content of the permissible fuel and the projections made in this report can thus no longer be considered valid. The original report in which this statement was published was" Brussels, 21.9.2005 SEC (2005) 1133". In this report the forecasted SOx level from EU 25[1] in 2020 is 3.526 mill. ts. It is generally accepted that the global consumption of marine fuel is around 300 mill. ts p.a. In 2020 the maximum sulphur content will be 0.5% in EU waters and likely also in the rest of the World as per Marpol Annex VI. So the global emission in 2020 should be around 1.5 mill ts., less than half of the forecasted EU 25 emission on which this statement is based and which Is a key argument for this legislation.	This has been taken into consideration on the IA where appropriate
		Section 2 deals with PM effect. It is correct that changing from 1.0% sulphur fuel to 0.1% sulphur fuel will reduce the overall PM level. DFDS claim that the IA does not elaborate on is the size of the PM's. Smaller PM's are more harmful to human health and can travel over longer distances and thus a net benefit to society may not be evident.	Modelling was carried out for this in 2008.
		Section 5.1.1 sub-item item 1 specifically mentions "Seawater scrubbers". DFDS point out there are other types of scrubbers.	Noted
		Section 5.1.4. DFDS point out that when evaluating the future fuel consumption, the EU White Paper on Transport that specifies the requirement for transfer of a significant	This amendment has been made

		portion of road transport to other modes of transport has not been considered. **Section 5.1.5. Top of page 15** speculates in that a vessel operator could choose not to operate a scrubber although installed and this cannot be checked. This is not correct. To date all scrubbers installed have the so-called "Type B" approval. Given the lead time for such installations it is already clear how many vessels globally will be able to comply with the new sulphur regulations through other means that operating on low sulphur (0.1%) gas oil. This number is very low approximately 17000 different vessels trade within the North European SECA every year and in 2015 less that 200 of these will have a scrubber installed or operate on alternative fuels such as LNG. Scrubbers require significant investments and their pay-back not only depends on the future difference between the price in the various fuel grades. DFDS refute the statement section **5.1.5 3rd paragraph**, where the assumption is made that scrubbers will reduce in price by 50% by 2020. **Section 5.2.3 and section g.** DFDS are very concerned about the assumption that the MCA will be able to carry out an effective enforcement without a change to current practice	This has been reflected by other parts of industry and has been expanded in the IA. The 50% value was based on previous consultation work with industry and manufacturers and has been reviewed. The Directive will be implemented and enforced within current budgets.
BP Shipping Ltd	24/06/14	They believe the case to explore development and utilisation of alternative fuels is valid, but should not be overstated (including methanol and LNG) They agree that there is good potential for LNG to be used as the marine fuel in the long run (beyond 2020), The 2020 - 0.5% low sulphur fuel implementation date and other regulatory measures (e.g., safety and handling specification) will help facilitate future LNG investments. Other alternative sources of fuel mentioned in the consultation such as methanol, bio-diesel etc. that are	

		derived from bio-feedstock warrant stringent testing and safety assessments prior to be considered as a reliable source of marine fuel. These alternatives in our opinion do have potential, but certainty of supply will be the key to determine their suitability, as ships would need to bunker frequently. In respect to marine fuel availability and pricing; it is their view that this is dependent upon various drivers of supply and demand within the global fuel markets, including the market for fuel substitutes. They refer to the fact that Aviation sulphur limits of 15 ppm (down from 3000 ppm) could be achieved by 2020 (based on the US funded studies). BP believe that use of that example in the shipping context is not entirely relevant as there is no legislative framework in place to reduce the aviation limits to the stated level. (See also Regulation table)	
The Maritime Heritage Trust	24/06/14	(See Regulation table)	Noted
Harwich Town Council	26/06/14	(See Regulation table)	Noted
Scottish Environment Protection Agency	26/06/14	(See Regulation table)	Noted
UK Major Ports Group	26/06/14	UKMPG accepts that the draft transposition regulations appropriately apply the terms of Directive 2012/33/EU into national law without gold plating. However they are strongly of the view that the benefits of the proposal as set out in the impact assessment (IA) have been overstated and the costs understated for the following reasons: The IA does not take into account the potential costs to port operators or to port communities resulting from changes to shipping patterns caused by the introduction of more stringent standards in the Sulphur Emission Control Areas in the North Sea and English Channel from January 2015. (An example is in their	Noted Where possible, the information provided by the UK major Ports Group has been incorporated into the IA.

		response) Some of the non monetised health and air quality benefits appear to be overstated. For example with the one of exception of Dover, there are no Air Quality Management Areas in ports attributable to emissions from ships. UKMPG believe the IA should be revised accordingly, to assess the effects of potential changes to shipping routes in more detail for example the forthcoming withdrawal of the Harwich – Ejsberg service. UKMPG's understanding is that the true overall cost of all such changes could be much higher than stated, with the prospective loss of 2000 jobs in the UK, 12 million tonnes of additional CO2 emitted each year and additional costs of £300 million per annum for shipping operators and customers. There is also some evidence that the increased demand for middle-distillate fuels could have knock-on consequences for the price of diesel for motorists, and the IA should also take this into account. Finally the IA should be more explicit that the essential reason for bringing in these particular regulations is that the UK is fulfilling a requirement under international and more specifically EU law which does not allow for an alternative approach.	These points which UKMPG have made have been incorporated in the IA as appropriate.
Forth Ports	27/06/14	Page one of the IA states that 'Emissions of Particulate Matter (including Black Carbon) released into the atmosphere are also expected to fall resulting in a number of health benefits.' Whilst this would have the potential to be beneficial, there is no evidence presented to support this assertion. The IA needs to be clearer on air quality management in ports and the benefits should result solely from a reduction in $SO_{X,}$ not other pollutants.	Work was carried out by the MCA on this in 2008 and much of the detail is based upon that. This is a minor amendment which has been incorporated in the IA.

		IA is over optimistic regarding the uptake of alternate fuels. They consider the uptake on scrubbers may not be as prompt as anticipated because of the options available ie open and closed loop type. They consider the health benefit listed in the IA may be optimistic. There is going to be a consequent impact on other non-marine fuel types which has not been taken into account. They highlight that the legislation will put on the pressure on refineries. The potential modal shift is highlighted as is the impact the legislation will have on competition between different modes and routes, leading to distortion in the market. For the reasons above they believe that the benefits in the UK are being over stated and the costs are being under stated in the IA. They provide information which they say casts doubt over the incremental reductions that will accrue from the proposed sulphur limits. A number of Forth Ports customers have made it clear that there is significant risk that there will be a movement in trade from ports on the east coast of the UK to those on the west coast, this allows the shipping lines to avoid the substantial additional fuel costs associated with the ECA. This is of serious concern to Forth Ports and other port operators on the east coast. It is particularly concerning when, despite this risk being highlighted by previous reports, the impact assessment for the Regulations state that there is no competition or market distortion issue. Based on the customer discussions over the past couple of weeks, there is	This and the following points have been reflected in the IA as necessary.

		clearly significant risk of this occurring. It would appear that Clydeport and Liverpool (both Peel Ports) are anticipated to be the key beneficiaries. Such a route variation further emphasises the over estimation in any improvements to UK air quality. An increase in shipping movements on the west coast will result in the emissions being deposited predominantly upon the UK. This contrasts with UK east coast coastal shipping emissions, which are liable to be predominantly deposited at sea, rather than on land.	
Hutchison Ports UK	27/06/14	The IA does not take account of potential costs to port operators. It will result in cessation of services and a move to other modes of transport and the impact that will have. The IA generally over estimates benefits and under estimates costs. It will distort competition between UK ports within the SECA and those outside its boundaries.	These points have been incorporated into the IA where appropriate.
Bunkerworld	01/07/14	**Costs associated with fuel switching** There may be extra cost as tanks will need cleaning to avoid contaminating the fuel. There could be an increase in obtaining middle distillates **Fuel premium** Bunkerworld have provided detailed information on price scenarios. **Costs associated with fitting scrubbers** Set out figures in their response which indicates significant costs. Uptake could be significant before 2020 for vessels	The information provided by Bunkerworld has been considered and included in the IA where appropriate. These figures provide useful

		that operate exclusiviely within ECAs, provided investments aren't deterred by uncertainty about washwater criteria and a lack of waste reception facilities. Vessels operating globally will not be likely to adopt scrubbers prior to the date when a global 0.50% sulphur limit takes effect in, 2020 or 2025. Possibly 10-20% level of uptake of EGCS before the global sulphur limit takes effect. The availability of scrubber technology may be available but there could be installation bottlenecks. **Alternative fuels** They believe there will be an extremely limited uptake of other alternatives for existing fleets but a slow and steady increase for newbuilds. A small number of vessels will run on biodiesel but not enough to make a significant impact on overall demand for MGO. With respect to other alternatives, methanol is a possibility providing it is proved safe during sea trials and the price is right. **Enforcement** They consider that the fines imposed by the UK are low in comparison with other countries. Clarification would be useful for the situation where a vessel purchased low sulphur fuel in good faith but later testing proved it not to be within the limits.	information which have been included in the IA Noted. Noted Noted The SI follows normal statutory penalties – however, there is the option for cases to be referred to the crown court where the penalties may be more severe. The UK would take a pragmatic approach in these circumstances as under the current regime.
P&O	01/07/14	It is noted that a number of the monetised costs relate to old information which may not hold good today.	This is noted but best endeavours have been made to use the most up to date information and a review will

			occur in 2018.
		Fuel switching It should be made clear that there is no requirement to use the 0.1% sulphur content fuel (MGO) prior to 01/01/2015, as if companies switch over early to ensure full compliance they will incur the additional costs of burning MGO within 2014 which has probably not been budgeted for.	Noted.
		Detailed concerns expressed about the use of scrubbers and conclude that only a small number of the scrubber designs available are technically suitable for multi purpose ships.	These concerns have been addressed in the main body of the IA.
		Alternative fuels General industry view is that LNG is only feasible for new builds.	Noted.
		Costs associated with fuel switching Believe all costs will be a financial issue and demand will push up price of similar grade fuels.	Noted.
		Tank cleaning will need to be taken into consideration and there is a massive cost in changing lub oils to a lower TBN.	Assuming this comment is on the basis the ship owners/operators have decided to use compliant fuel, the tank cleaning would be a one off operation expenditure. For the same assumption, the change of use of engine cylinder lubricating oil is noted.
		They consider refineries will be unable to cope with the demand for low sulphur fuel. **Fuel premium**	Noted.

		Scenarios in IA are reasonable. **Costs associated with fitting scrubbers** Do not agree with the values or costs as to whether they reflect industry experiences. They believe the availability of scrubber technology will be an issue. **Monetised cost estimates for the UK shipping industry** They believe the impact of the Directive could be a loss of ships and a loss of EU seafarers and port workers jobs **Alternative fuels** They believe there will be a low uptake apart from new builds. **General point** They consider consultation and implementation should have happened earlier.	Noted. Noted. Noted. These comments have been reflected in the IA where possible. Noted Noted
Northern Marine Management on behalf of Stena	01/07/14	**Costs associated with fuel switching** Consider costs for switching will increase as vessels will now need to operate with LMSGO for prolonged periods. Use of low sulphur will lead to increased bunkering operations hence increased cost. Believes that refineries will be able to cope with change in demand. **Costs associated in fitting scrubbers** Believe much work is still to be done to make it an attractive proposition **Alternative fuels**	These comments have been incorporated in the IA as appropriate. This is reflected in the IA Noted.

		As a company are actively investigating suitability of biofuels. **Monetised cost for UK shipping industry** Do not envisage changes to traditional shipping transportation methods as a result of increased shipping costs due to the low sulphur regulations. **General** Do not support the UK Government approach to implementing the Directive.	The IA has incorporated this comment where appropriate. Noted
British Ports Association	01/07/14	Cite the example of the Harwich/Esjberg ferry service closing in light of the proposal. Also refer to the Brittany Ferry service between Poole and Spain. They want to put on record their support of the European Sustainable Shipping Forum which provides advice on technical and finance issues. They state that in the future ports will be affected by the need for the shipping industry to invest in abatement technology and higher fuel costs. The result will be shipping lines closing or being consolidated.	These comments have been incorporated in the IA where appropriate
Intertanko	01/07/14	They express general concern about the Directive referring to the Annex VI guidelines which they claim are not respected by industry. **Specific comments** Page 15 : incorrect assumption that scrubbers limited to main engines. Page 16 : Disagree that 20-30% assumption will be using LNG by 2020. Page 19 - Do not understand the concern of the impact on the refining industry They suggest that historically, the MGO price premium	Noted. The further work on the IA has incorporated these comments where possible.

		over HFO was about $300 to $350 per tonne. That was the case when HFO price was $300/tonne and when the HFO price was over $700/tonne. With regard to the cost of scrubbers, the price for a scrubber could be only 50% of the total price of retrofitting it onboard a ship. The other 50% includes prices of commissioning, work to retrofit the scrubber, class fees, off-hire time, etc. They suggest that an average price for retrofitting a scrubber is not lower than $4 millions. For existing ships with ME engines, retrofitting for LNG consumption could be as high as $7m or $. It is possible that introduction of these (and other) regulations could result in the early scrapping of vessels and increase the number of newbuilds.	
Unite Union	01/07/14	Believes will have far reaching implications across Europe and will impact the flow of freight Will have impacts beyond the shipping industry **Environmental impacts** Points out that comparisons between, for example, the Baltic and North Sea are difficult as potential pollution in the North Sea would spread further. **Costs associated with fuel switching** Do not agree that costs associated with the change have already been occurred. Additional costs will likely be passed onto customers and a potential redistribution of freight paths. Unite believes, any increase in the cost of fuel will have significant consequences for the financial viability of services. Additionally, in some ports the infrastructure previously	Noted. All of these comments have been considered and the IA amended as necessary.

		utilised to supply the current heavy oil supplies will be used to provide the low sulphur distillates. This will force lines to change to the low sulphur fuel, even if the line had previously invested in scrubbing devices which enable it to continue using the current higher sulphur oil. **Costs associated with fitting scrubbers** Unite does not agree with the assumption that EGCS uptake will not be significant before 2020 given that lines are already investing in EGSC heavily in order to comply with the 2015 changes. Unite doubt the availability of scrubber technology to be an issue currently but doubt that shipping lines will be able to install **it by the deadline.** No mention is made of the costs of disposing of scrubber wastes. **Monetised cost estimates for the UK shipping industry** Unite believe the lifelines to many small ports provided by short sea shipping routes, are especially at risk along the South and East Coasts. Logistics companies are already seeing the imminent entry of this legislation as an opportunity. Unite believes that this will cause an increased demand for road container traffic from Liverpool, Bristol and other West Coast ports. This could impact on the surrounding infrastructure and result in further pollution. **Alternative Fuels** Unite refer to the possible blending of standard shipping oil and biodiesel or fuels derived from other sustainable sources. They believe LNG to be a viable option but its use will place a strain on the infrastructure thus possibly driving up price of gas supplies.	

		Enforcement sanctions and monitoring Unite strongly believes the penalties for non-compliance are far too lenient. They consider responsibility should lie with the ship owners with respect to the equipment installed. They consider shipping lines may take a risk of non-compliance even after fines are paid. Unite believe spot checks on vessels are ineffective as the ship could change fuels when an inspection team is in sight. They believe monitoring equipment should be on board the vessel. **General comment** Unite believe that there are some serious flaws in the implementation of the legislation particularly, in respect of the clause which allows a ship to simply declare that they have not been able to obtain the fuel to avoid compliance. Unite does not believe it is unreasonable to require shipping lines to be responsible for ensuring that adequate fuel supplies available at port of call. Unite also believes that the Impact Assessment has not taken a wide enough view on the effect of this legislation, nor placed measures in place in order to lessen its effects in particular, on jobs, freight movement or the viability of short sea shipping and ferry operations.	The SI follows normal statutory penalties – however, there is the option for cases to be referred to the crown court where the penalties may be more severe. Any issues will be considered on a case by case basis. The IA has incorporated this comment where possible.
South west maritime history society	02/07/14	(See Regulation table)	Noted
The Government Chemist	04/07/14	(See Regulation table)	Noted
UK Petroleum Industry Association (UKPIA)	04/07/14	The incremental volume of gas oil is likely to be sourced from imports There are around 40mte of high sulphur bunkers consumed in the EU and, if ships do not fit scrubbers by 2020 (or 2025 depending on the outcome of the MARPOL review), then this volume of fuel will have to	

		be converted to 0.50% mass material. This will require high pressure, high temperature refinery processing which will release additional CO2 as well as adding substantial cost to the consumer. It is unlikely that such investment in upgrading refineries will be made within the UK (or even the EU) because this measure, when combined with other environmental regulations, puts UK & EU refining at a disadvantage versus non EU refiners. The combined impact of these measures, which do not include other regulations currently being drafted within the EC, will potentially cost UK refiners £11bn to comply with. Therefore some UK refineries may not be able to comply, become uneconomic and close. Consequently the UK will rely on more imports and have lower supply security and resilience for all fuel products. Page 7: "*Marine fuel has been … increasing in average sulphur content …"* – The only monitoring at global level that we are aware of is the IMO monitoring, which was started in 2004 showing an average S level of 2.7% for heavy fuel oil, and reported an average of 2.43% in 2013. *"… disposing of excess elemental sulphur and …"* – this is incorrect and refineries do not operate in this way. Sulphur in its elemental form after being removed from the fuel is supplied to the chemical industry as feedstock. The sulphur content in marine fuels comes from the sulphur which is naturally within the crude oils processed themselves and those streams which are used to blend the fuel. Elemental sulphur is not added to marine fuel in the way implied by the impact assessment. Page 31: The higher efficiency of distillate fuel is relatively small compared to residual fuel. CO2 emissions from the ship are indeed lower, but these savings are more	These comments have been considered and the IA amended where appropriate.

		than offset by the increases in refinery CO2 emissions – in other words, on a well-to-propeller basis, distillate fuel is worse (this is explained in more detail in paragraph A3 above). The reasoning given on no increased CO2 emissions in EU refineries due to the ETS cap is incorrect – it is a fact that emissions would increase in EU refineries if they had to produce more low sulphur fuel.	
Exxon Mobil	04/07/14	Exxon's comments are incorporated with those of UKPIA	Noted.
RMT Union	04/07/14	They consider the Impact Assessment has not taken into account evidence on the risk to seafarers' jobs, despite serious concerns being raised by unions and industry. They are very concerned about the impact on employment. The Regulations could lead to cuts to UK seafarer jobs on a scale bigger than those that followed introduction of Duty Free and opening of the Channel Tunnel combined. RMT want the Government to give assurances that it will not allow shipping companies to sack UK seafarers and replace them with low cost colleagues from outside the EU as a way of meeting the cost of compliance with the new sulphur dioxide emissions cap. They believe the regulations could trigger a modal shift that would be environmentally damaging, as ferry passengers and hauliers are hit with higher fares and switch to other modes, especially road and aviation.	Comment taken into account in the final IA. Comment taken into account in the final IA. This is outside the scope of the Regulations. Comment taken into account in the final IA.
Stena Line	01/07/14	**Environmental Impacts** The Impact assessment in Annex B is noted.	Noted.

		Costs associated with fuel switching The costs associated with fuel switching on January 1st 2015 will be significant, in line with the fuel premium estimates and will be passed on to customers. This will result in some customers switching from Stena Line to using the Channel Tunnel on the traditional South Eastern corridor(s) routes and therefore impact on the profitability and viability of our routes.	Noted.
		Stena Line understands that it is unlikely UK refineries will be unable to meet demand and fuel costs will rise further in line with the new transportation costs necessary to meet that demand.	Noted.
		Fuel premium Stena Line has no comment	Noted
		Fuel consumption Stena Line strives to reduce fuel consumption as a KPI requirement. Based on current indications it is unlikely that fuel consumption reduction initiatives can possibly match the anticipated fuel premium.	Noted.
		Costs associated with fitting scrubbers Indicative costs for Stena Line vessels to fit scrubbers are circa €4-6M dependent on vessel with excessive refit time estimated to be in excess 30 days. Scrubber technology reliability is not proven and current availability is questionable. Stena Line operates 25+ ferries in ECA areas with 5 Ro Pax and 2 Ro Ro in Area North Sea. The cost of chartering in vessels to cover these refit periods does not appear to have been taken into account.	Comments taken into account in the final IA where appropriate.
		Monetised costs for the UK shipping industry Any reduction of revenue in what can only be described as a marginal business in the South East corridors can only be offset by a reduction in costs which inevitably result in job losses. DFDS have already announced one closure on Southern North Sea as the business was marginal and with the ill	Comment taken into account in the final IA.

		thought out introduction of the new rules, despite logical argument, it would not be viable to continue. This applies to all ferry operators operating in a marginal business and is exacerbated in South East UK with the presence of the Channel Tunnel operators. The longer routes will suffer the most significant costs in relation to numbers of passengers and cargo as identified in the IA. **Alternative fuels** Stena Line is actively engaged in the pursuit of alternative fuels and trialling methanol at this time. There is no infrastructure of substance in the UK that can currently support either LNG or methanol in the UK and that in itself will impact the viability of alternative fuels. Ferry harbours by their nature are located close to the populous and are bound to face tough opposition in attempting to build the necessary infrastructure to support these fuels. Even then, the costs may be prohibitive coupled with the necessary permissions required in relation to such infrastructure. **Health benefits** Stena Line supports measures that improve the health and well being of the population. The IA suggests significant benefits of sulphur emission reductions but does not take into account the localised pollution caused by freight and passenger vehicles switching to shorter routes and travelling further by road. Neither does it take into account the potential increase in road traffic accidents due to modal shift from sea to roads. It is estimated that this modal shift will cause an extra 3.6 million tonnes of freight on UK roads. **Enforcement** Stena Line always acts in good faith and assiduously to achieve compliance with all regulations. The level of deliberate offence should be proportionate to the outcome of that offence. If a shipowner receives fuel in good faith and it is subsequently found not to be compliant with the regulations then that shipowner	Noted. Comment taken into account in the final IA. The SI follows normal statutory penalties – however, there is the option for cases to be referred to the crown court where the penalties may be more severe.

		should not be penalised. **General questions** Is there any discussion on EU funding to assist shipowners moving to alternative fuels in relation to the infrastructure necessary?	DfT have taken forward this strand of work separately in conjunction with industry partners.
The Scottish Government	02/07/14	They remain concerned about a few points of the Directive - in particular, the impact of increased fuel costs on their ferry services and on their cruise ship tourism, which they hope to continue to grow and not be stalled by the Directive. They are also concerned about the possible implications for modal reverse as a result of any increased costs incurred by shipping companies moving freight that will ultimately be passed onto their customers.	These issues have been addressed in the IA where possible or in bilateral discussions with the Scottish Government.