# Problems of Global Governance of Seafarers' Health & Safety

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# PROBLEMS OF GLOBAL GOVERNANCE OF SEAFARERS' HEALTH & SAFETY

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#### **Executive Summary**

ES1 This project was undertaken, with support from the UK's Economic and Social Research Council and the Seafarers International Research Centre, to conduct a crossnational study of the enforcement of international regulations on seafarers' health, safety and living and working conditions by Port State Control Officers in India, Russia and the UK.

ES2 Fieldwork in Russia was undertaken by a team under the direction of Prof Yakov Gilinskiy of the Russian Academy of Sciences, in India by Prof Ramesh Datta on extraordinary leave-of-absence from the Tata Institute of Social Sciences in Mumbai, and in the UK by Prof Michael Bloor, the lead grantholder; Dr Nick Bailey conducted some of the UK interviews.

ES3 The main data collection effort consisted of 'shadowing' inspectors on 104 ship inspections. No inspectors refused to take part in the shadowing exercise and no ships' captains refused researchers access to their vessels. Additionally, a total of 37 semi-structured interviews were conducted with inspectors and other key industry stakeholders (ship operators, shipping agents, national and international regulators, insurers, union officials, etc); most interviews were face-to-face but six were conducted by email. For comparative purposes, a port health inspector, a port mission worker and an ITF inspector were also shadowed. Preliminary results were fed back to a roundtable group of inspectors and senior regulatory officials. Informal briefings on the results were also given to officials in the UK and India; and presentations on the study were given to industry audiences in Norway, Cardiff, and Singapore.

ES4 Indian port-State control is not as well resourced as either the Russian or UK inspectorates. In a generic inspectorate where labour resources must be divided between port-State inspections, flag-State surveys and seafarer examinations, Indian inspectors preferred examination work to port-State control activity. A comparative lack of Indian inspection resources was compounded by a lack of targeting resources, although plans are in place to provide Indian inspectors with IT access by the end of 2004 to assist in targeting sub-standard ships. Currently, Indian inspectors target ships primarily on the basis of visual clues from the dockside.

ES5 Targeting of port-State inspections in Russia and the UK is assisted by the Paris MoU database SIRENAC which provides a Target Factor (TF) for each berthing ship. The TF serves to penalise sub-standard shipping by subjecting high TF ships to repeated inspections, required repairs and possible detentions. Furthermore, since the methodology of the computation of the TF is transparent, and since ships' inspection records are publicised ('name and shame'), the Paris MoU targeting system seeks an 'accommodative' strategy of enforcement which encourages ship operators to take active steps to reduce their TF (and improve ship and labour standards) in order to improve their commercial standing. However, there were some difficulties identified in the operation of targeted inspection systems. Russian inspectors sometimes had difficulty accessing targeted ships, while UK inspectors lacked information on berthing ships in many smaller ports.

ES6 While many interviewed stakeholders believed that some high TF ships were being effectively deterred from entering Paris MoU ports, there was still evidence of

some high TF ships operating in the region Paris MoU officials themselves have concluded that 'efforts need to be enhanced to obtain a substantial reduction in the number of substandard ships visiting the region' (Paris MoU, 2003). In respect of the 'accommodative' strategy which seeks to use market influences to encourage ship operators to make proactive improvements in standards, it was clear that while industry stakeholders did factor a ship's inspection record into their commercial calculations, this was undertaken in a nuanced way. An important consideration here was that some inspection records were seen by stakeholders as inaccurate reflections of ship standards because of perceived inconsistency in inspection practice. Inconsistency in inspection practice was also responsible for some sub-standard ships having a low TF and therefore being less visible targets for subsequent inspections than their condition warranted.

ES7 Inconsistency in inspection practice was observable from nation to nation, from port to port, and from inspector to inspector, and was deplored by ship operators. Port-State inspections operate on a discretionary principle. This allows inspectors to focus their efforts in the most appropriate areas and to exercise a degree of pragmatism and latitude in their judgements. Nevertheless, it is clear one reason for inconsistency is that some inspectors are more effective than others. Cross-nationally, some differences in inspection practice are attributable to differences in 'regulatory character' (Haines, 2003), to the intersection of local economic, political and cultural influences with international standards. The mediating role of shipping agents in India is one example of these cross-cutting influences on inspection practice. Differences in regulatory character lead in turn to differences in the 'trust profiles' (Walls et al. 2004) of national port-State regimes, which lead in turn to qualifications being made by stakeholders in their commercial judgements on ships' inspection records.

ES8 The level of attention accorded by UK inspectors to hygiene and seafarers' living and working conditions was very much greater than that accorded by their Indian and Russian counterparts. Although both Russian and Indian inspectors were observed on occasion to inspect the galley, galley stores, accommodation, and ship's hospital, they did not do so routinely, unlike their UK counterparts. Further, Indian inspectors on occasion did not regularly check medical certificates and hours of work and rest, unlike their Russian and UK counterparts. All inspectors laid most emphasis on technical aspects of health and safety, and particularly on standards of safety equipment. Even in the UK - despite some well-publicised detentions of ships for carrying insufficient food or insufficient bedding - instances were observed where inspectors, faced with multiple deficiencies in ship standards, would simply omit examination of health and labour standards altogether: it was evident that on some sub-standard ships labour standards are not being policed by either flag-State or port-State. And although UK inspectors would sample the operation of ISM systems, they were not observed to target ISM systems pertaining to hygiene or crew welfare. UK inspectors were not just the most comprehensive in their coverage of hygiene issues and living and working conditions, they were also most likely to use their discretionary powers to secure compliance with labour standards without proceeding to detention.

ES9 The common perception of industry stakeholders is that there already exists a wealth of shipping industry regulation. However, in some important respects it was

observed that there was a regulatory deficit rather than an enforcement deficit in operation. In respect of the crucial issue of seafarer fatigue (implicated in many collisions and founderings, in marine pollution incidents, and in poor seafarer mental health), current regulations on hours of work and rest were found to be, to all practical purposes, unenforceable.

ES10 There are no obvious 'blueprints' for the wholly effective governance of globalised industries. The fact that port-State control has not been wholly effective in eradicating sub-standard ships and has not been wholly effective in persuading ship operators to compete in terms of quality - a market in virtue - should not be ascribed to the personal inadequacies of the inspectors. Nevertheless, more thoroughness could be achieved in the inspection of hygiene, welfare, and labour standards, and a short list of possible further foci for such inspections has been appended.

# Introduction

The Geneva Accord of January 2001 inaugurated an ambitious project by the Joint Maritime Commission (JMC) at the International Labour Organisation (ILO) to consolidate into a single convention all the operative ILO conventions on the shipping industry. Researchers at Cardiff University's Seafarers International Research Centre (SIRC), which provided some of the background documentation for the January 2001 meeting in Geneva (ILO, 2001), took the view that the commitment of the JMC to major regulatory reform made it timely to consider researching the effectiveness of the enforcement of ILO regulations on seafaring. Accordingly, SIRC applied successfully to the UK government's Economic and Social Research Council for funding to undertake a comparative study of the effectiveness of one aspect of international regulation, namely port-State enforcement of seafarers' health and safety (ESRC grant number: R000239864). This comparative project examined enforcement practices in India, Russia and the UK, and ran from December 2002 to March 2004. The SIRC contribution to the study was the salary cost of Michael Bloor, who undertook the UK fieldwork and oversaw the management of the project. The project involved collaboration with the Russian Academy of Sciences' Prof Yakov Gilinskiy, who contracted, with his co-workers, to undertake the Russian fieldwork. Prof Ramesh Datta took extraordinary leave-of-absence from the Tata Institute of Social Sciences in Mumbai to undertake the Indian fieldwork.

Seafaring remains a high risk occupation. Fatal injuries in the Danish mercantile fleet, for example, are eleven times higher than the average in Danish shore-based occupations (Hansen, 1996), and the occupational mortality rate for UK seafarers is twenty-six times the UK average (Roberts, 2002). Moreover, the globalisation of the shipping industry may be posing new health threats to the labour force through more intensive use of labour (Bloor et al. 2000), which is less subject to protection as a result of the operation international labour markets..

The study reported here has taken a deliberately inclusive view of international health and safety regulations, including a concern with enforcement of those regulations covering crew certifications and the IMO Safe Manning Certificate, since crewing levels may bear on working hours and seafarer fatigue. The report does not examine enforcement of ILO regulations on remuneration and contracts. Whilst recognising that enforcement of international regulations is a matter for both flag-State control and port-State control, this project nevertheless focuses exclusively on issues of port-State governance. The issues of flag-State governance have been widely debated and systematically documented (see, for example, Winchester and Alderton, 2003), but, in comparison, the effectiveness of port-State enforcement has been little investigated. Furthermore, it is difficult to disagree with Lord Donaldson's succinct judgement on the relative importance of flag-State and port-State governance:

"...the primary responsibility as always is that of Flag States, but collectively they are a broken reed. Sub-standard ship-owners can transfer their ships to the flags of those states which ignore their international obligations. And they do. [Past] statistics show a clear correlation between increases in the size of the fleets of Flag States with an above average percentage of losses. The first, and indeed the last, line of defence in terms of detection is therefore Port State inspections' (Donaldson, 1996). While there is clearly scope for a broader comparative study of Port State Control in the future, this study is the first one to collect cross-national data on Port State Control Officers' (PSCOs) ship inspections, with more than a hundred such inspections being observed. It is only the second independent cross-national study of port-State control to be undertaken and reported upon, J. Hawkins's (1999) interview study of port-State control State control in the Asia-Pacific region having been the first.

Arguably, among traditional industries, it is shipping which has been changed more than any other by globalising economic processes. Such globalised industries present particular problems for effective international regulation (Braithwaite and Drahos, 2000; Dicken, 2001). There is no blueprint for the effective supranational governance of global industries, as the World Trade Organisation has observed and demonstrated. Indeed, one of the drivers of capital flows across national boundaries is the avoidance of regulatory restriction and successive Organisation for Economic Cooperation and Development reports on the shipping industry have pointed out that many substandard operators in the industry are saving a significant percentage of total operating costs through regulatory avoidance (e.g. OECD, 2001). It should therefore come as no surprise if port-State control is less than wholly effective as a global mechanism of governance. And it needs to be emphasised that those shortcomings in effectiveness should not be laid at the door of individual port-State control officers, the majority of whom we believe to be committed to the protection of labour standards in the industry and whom we observed to be doing their best under difficult circumstances – being sometimes subjected to attempts at influence and inducement, sometimes obstructed, and also sometimes abused.

We acknowledge that none of the Project's grantholders or fieldworkers are technical experts in environmental health or occupational safety systems. Nevertheless, in order to attempt to maximise the practical policy value of this unique comparative investigation, this report closes with some simple proposals which we suggest might assist in generating more satisfactory working conditions for PSCOs, and enhanced governance of seafarers' health and safety.

#### Methods

Two main data sources were used: firstly, fieldnotes written by the researchers recording their observation of ship inspections by PSCOs in the UK, Russia and India; and secondly interviews with inspectors and other key industry stakeholders. A small number of additional ship visits were carried out, for comparative purposes, with a port health inspector, with an International Transport Workers' Federation (ITF) inspector and with seafarers mission staff. Concerning the fieldnotes of the ship inspections, 104 ships were visited in total, including initial pilot visits. The inspectors were drawn from five different offices (two in the UK and India) and the inspections embraced a range of ship types and included some inspections conducted in smaller ports. No selectivity occurred: the researcher simply accompanied an inspector to whatever ship had been targeted for inspection that day. No inspectors refused to participate in the 'shadowing' exercise and no ships' captains refused the researchers access to their vessels. Access arrangements varied according to local conditions. In the UK fieldwork, for example, the fieldworker (Bloor) carried ID and

a printed leaflet giving information about the study and contact details for further information. All the fieldnotes were collected centrally and systematically analysed. A total of 37 semi-structured interviews were conducted with inspectors and other key stakeholders. These included national and international regulators, ship operators, ships agents, a charterer, a pilot, port health inspectors, union officials, port officials, and senior managers in a class society and a protection and indemnity club. One respondent refused to be audio-recorded, and in this case the interviewer produced summary notes after the interview. In a further interview the interviewer neglected to bring a recording device to the interview. Six respondents preferred an email interview. In all other cases the audio-recordings were transcribed (and where necessary translated) and the transcribed interviews collected centrally and systematically analysed.

Some preliminary results of the analysis were fed back to a roundtable group of inspectors and senior regulatory officials. The discussion was audio-recorded and analysed in order to further extend the preliminary analysis (see Bloor 1997 on the analytic use of feedback). Informal briefings on the results were also given to international regulators and to national regulators in the UK and India. Presentations on the study were given in 2003 to industry audiences at the Norshipping Conference (Norway), the SIRC International Symposium in Cardiff and the joint SIRC-SMA conference in Singapore.

The UK data were all collected by Bloor, except for six of the inspector interviews (conducted by Bailey, another SIRC staff member). Horlick-Jones assisted in the roundtable feedback discussion. The Indian data were collected by Prof Ramesh Datta, on secondment to SIRC from the Tata Institute of Social Sciences in Mumbai.

The sub-contract for the Russian data collection was awarded to an eminent Russian criminologist and fieldwork was conducted by two post-doctoral Russian researchers; additional assistance with the interviewing was provided by a third post-doctoral researcher. On May 14<sup>th</sup>, shortly after the Russian fieldwork had begun, the Captain of the St Petersburg port and the person who had been pivotal in the earlier access negotiations for the study, Capt Mikhael Sinelnikov, was murdered outside his apartment by an unknown assailant. The grantholders requested that the Russian fieldworkers suspend fieldwork while a risk assessment exercise was conducted. Professional security advisors in the UK and Russia were consulted on the possible risk to fieldworkers. The lead grantholder visited Russia to consult the researchers there. Eventually, with the consent of the funding agency which had been kept informed throughout, it was decided to resume fieldwork. A schedule of additional precautions (such as the conducting of all fieldwork in pairs) was agreed to increase fieldworkers' security. However, some further restrictions on reporting and dissemination have been adopted here and in other reports (again with the consent of the funding agency) in order to provide additional security to the fieldworkers.

#### Results

## (a) Targeting and Resources

Port-State control is not a revenue earner, although most maritime administrations (but not Russia) charge operators for re-inspections of detained vessels. Thus, one constraint on the effectiveness of port-State control is bound to be that of the resources allocated for inspection work. And one source of cross-national variation in effectiveness is that of national variations in resources available. J. Hawkins (1999) in his interview study of port-State control in the Asia Pacific region found substantial cross-national differences in resourcing, but the findings were more complex in the present study. Russia, despite suffering the problems of under-funding of state sectoral activities experienced by all transitional states, has a specialist group of maritime administration staff dedicated exclusively to port-State control inspections, whereas India and the UK both operate a generic inspectorate where staff divide their time between port-State inspections, flag-State inspections and examinations of seafarers competencies. The result is that Russia probably has proportionately more labour resources to devote to port-State inspections than India or the UK and indeed Russia has comfortably exceeded its annual target figure (as a member of the Paris Memorandum of Understanding on Port State Control) of inspecting a minimum of 25 per cent of foreign flagged ships entering Russian ports in recent years (Paris MoU 2002), outstripping the UK in most years. Note however that, while Russia, may be comparatively blessed in terms of labour resources for inspections, it is hampered in some other respects (transport, IT, mobile phone provision). In particular, Russian inspectors suffer problems in gaining access to some potential targets for inspection.

India, as a signatory of the Indian Ocean MoU on port-State control, has a lower annual target figure for port-State inspections than Russia or the UK as Paris MoU signatories, but the spreading of inspection resources across Port-State, flag-State and examining work nevertheless creates difficulties. These difficulties are compounded by the preference of many Indian PSCOs for examination work, because examining commands additional fees (parenthetically, it should be noted here that the salaries of Indian and Russian PSCOs compare most unfavourably with the salaries of senior Indian and Russian officers crewing the international merchant fleets – Indian and Russian interviewees claimed that Indian and Russian inspectors' salaries were only a fifth and a tenth respectively of Indian and Russian senior officers' salaries in the international fleet). Further, Indian PSCOs suffer additional equipment resourcing problems – a shortage of transport from offices to the ports and the absence of provision of mobile phones – sometimes leading to a potentially unfortunate dependence on ships agents for assistance in communications and transport.

In addition to telephone consultations with a line manager, UK port-State inspectors had the opportunity to conduct telephone consultations for technical advice with various head office specialists. However, this additional resource was only accessed once in the course of this fieldwork, where an inspector made an enquiry about whether a mineral ore cargo was, or was not, potentially subject to oxidation, requiring the ship to have  $CO^2$  fire-fighting capacity. And on that occasion head office was unable to supply an authoritative opinion while the inspector was still on board. The SIRE database, reporting on the inspection system operated privately by

the oil majors through the Oil Companies International Marine Forum (OCIMF), is also available for consultation by Paris MoU inspectors.

Targeting and resource issues are considered together here because effective targeting can compensate for limited resources. Russia and the UK, as Paris MoU signatories, are able to target inspection resources through the use of the common Paris MoU database, SIRENAC. Where inspectors have information from ports about berthing vessels, they can enter these vessels into the database and obtain a target factor for each vessel, thus enabling them to concentrate limited inspection resources on those ships with the highest target factor. The target factor is loaded on the basis of items such as past inspection record (how long since the ship was inspected in a Paris MoU port? What is the record on detentions and deficiencies?), age of vessel, type of vessel (bulk carriers have a higher target factor, for example), flag of vessel and classification society (flags such as those of Cambodia and class societies like the Bulgarian Classification Society carry higher target factors). The combination of a common method of inspection (Paris MoU countries have a common inspection manual) and a shared database on vessels' particulars and histories can clearly provide a potentially powerful tool for concentrating inspection resources (nationally and internationally) where they can be most effective.

J. Hawkins's (1999) Asia Pacific study observed that countries with the greatest inspection resources generally also had the best resources to target substandard shipping and this was also true in this study, with Indian PSCOs lacking access to any equivalent of the SIReNaC database, or other publicly available databases like EQUASIS, although access to an electronic database is planned for the end of 2004. Accordingly, Indian inspectors were observed to target ships for inspection largely based on visual impressions from the dockside, although (as in the UK) some ships might be inspected at the request of the Deputy Conservator of the port, if the pilot had reported a deficiency to the port authorities. Indeed, so limited was the targeting information for Indian PSCOs that it was observed that sometimes a ship might be selected for inspection for no better reason than that it bore an intriguing name.

A considerable advantage of the Paris MoU targeting system is its transparency. In effect, port-State control in the Paris MoU follows an 'accommodative' or 'compliance' strategy of enforcement and sees compliance as a process to be achieved over time (see Hutter, 1997, for an overview of the socio-legal studies literature on compliance). Although the costs of detention can be considerable – one ship detention in the UK that lasted for eighteen weeks was thought to have cost the operator £100,000 – the transparency of the target factor system seeks compliance through incentives and 'education'. It is not just that high Target Factor ships are discouraged from trading into Paris MoU ports. Additionally, operators see that they can reduce the Target Factor on their ships by switching away from high-scoring flags and class societies, and the more reputable Flag States and class societies may themselves act to improve ship standards. Moreover, operators are aware that a low Target Factor has market advantages, since charterers, insurers and other industry stakeholders are aware of the operator's port-state inspections record and will factor this into their economic decisions. As one operator remarked:

'It's getting through to charterers now [...]. Everybody is using EQUASIS – lawyers, charterers, P & I clubs [...]. "Name and shame" works: it's helping to remove the sub-standard ships that are driving down the freight rates.'

For individual operators and crew, the targeting system indicates that a ship with a poor record in terms of deficiencies and detentions will be frequently inspected until that record improves. The inspector below deliberately generated a long list of deficiencies, in the knowledge that it would result in a high Target Factor for the ship and more frequent inspections, which in turn would require a change in crew safety behaviour:

'[The inspector] listed eleven deficiencies [...]. But on the advice of his line manager he did not detain the ship, although a couple of deficiencies were "borderline detainable" [...]. [The inspector] had been minded to detain the ship after he encountered an antagonistic attitude from the mate and the Chief Engineer. After he asked the mate to rig up steps and rails from the stevedores loading the deck cargo, the mate said, "OK, we rig up some steps for the inspectors and the girls". After he pointed out to the Chief Engineer that there was an exhaust leak in the confined space housing the emergency generator, the Chief refused to accept it was a hazard and, as we left, shouted "I thank Heaven you are going". Earlier, the Chief had told me privately that he thought that inspectors were just creating jobs for themselves [...]. [The inspector] had told the master and the mate that he was disappointed that senior officers were not more safety-minded. In the car returning from the dock, he talked at length about the ship: in his time as an inspector he had never encountered such antagonism from crew before [...]. [He] said that his decision to generate a long list of deficiencies would produce a high target factor for the ship in the SIReNaC database, which would result in frequent inspections, which would force the senior officers to adopt a more safety-conscious approach.'

While a targeting system is undoubtedly highly advantageous, two problems were observed in the operation of the Paris MoU system. Firstly, and most obviously, effective targeting depends on full information and not all ports are routinely supplying PSCOs with information on berthing ships, with smaller ports being particularly deficient. The UK Maritime and Coastguard Agency has plans to increase information on movements in and out of smaller ports, but at the time of the study the lack of information supplied by some smaller ports had the practical effect that they were rarely visited: if the information supplied by the larger ports yields a ship with a high target factor, it would be irresponsible for a PSCO to pass up the chance to inspect the identifiable target in favour of a speculative visit to a small port which may not even have any ships currently berthed. A shipping agent based in one smaller port which averages 200 berthing ships per annum told Bloor that he had not personally encountered a single port-State inspection in the port in two years.

A second problem with the targeting system lies with successive amendments to the Paris MoU which have had the practical effect of severely constraining PSCOs' freedom of choice in the selection of inspection targets. Criteria for targeting 'expanded inspections' have been introduced, requiring signatory states to target for

'expanded inspection' every twelve months all berthing ships in certain categories (oil tankers over 15 years old, bulkers over 12 years old, gas and chemical tankers over ten years old, and passenger ships over 15 years old other than ro-ro ferries, and highspeed passenger craft). Additionally, it has become mandatory for signatory states to inspect all berthing ships with a Target Factor of 50 or more that have not been previously inspected in the past month. The practical result of the introduction of these expanded and mandatory inspections in the UK (and one infers in a number of other signatory states) has been that almost all the limited inspection resources available must be devoted to inspecting those berthing ships eligible for expanded or mandatory inspections. As a consequence, ships which an experienced inspector might deem potentially sub-standard become less readily available as inspection targets. The difficulty is illustrated by the case of the Agios Athanasios, detained in a UK port on 30/7/03 with 22 deficiencies (including serious deficiencies in communications equipment, problems with the lifeboats and lifeboat davits, deficient fire and boat drills, cockroach infestation, and insufficient recorded hours of rest). The ship was a 23 year-old bulker, not currently requiring a twelve-monthly expanded inspection, and despite its age, not qualifying for a mandatory inspection because its Target Factor was only 11. The reason the ship had such a low Target Factor was that its previous inspection record was spotless, with only no deficiencies recorded in four previous inspections since 2000. The implication is that poor inspection practice in certain ports can make sub-standard ships less visible targets for inspection on subsequent port calls, this invisibility being encouraged by the systematic promotion of other targets by the Paris MoU mandatory and expanded inspection system. The issue of inconsistency in inspection practice is considered more fully below.

# (b) Inconsistency in Inspection Practice

Inconsistency in inspection practice was a recurrent complaint of ship operators:

"There's ONE word you can put in [your report] for port-State control: "inconsistency". Inconsistency between ports and between countries." [ship operator]

One senior manager interviewed for this study produced a series of files on alleged wrongful detentions suffered by his company's vessels, for example a ship that was detained in the Far East because the master's and the second mate's certificates of competency had expired: the certificates had been issued (and the flag-State would confirm the date of issue) and were sitting in the office but had not been sent to the ship because of uncertainty about the ship's next port – it had actually been diverted into the detained port – 'a beautiful ship ended up with [...] detainable items which to me were a nonsense'. It was his contention that inappropriate detentions were so frequent that inspection records were failing to distinguish between the good and the bad operators:

"...the whole effectiveness of Port State Control, it's gone. It no longer matters – the inspection regime is so bad now – that it doesn't matter if the ship's got a record of detentions. Now surely that's counter to the original intention to having a police force. And we wanted that police force, because we think we're a good operator and we wanted rid of the bad operators. [....]. But it hasn't worked like that. And there's no difference between a real substandard vessel in the arrest frequency, or detention frequency, and a good vessel. That to me is absolutely crazy'.

Thus operators fulminated against inconsistencies in practice which led to seemingly unjust detentions and recorded deficiencies. But the study's fieldnote data also pointed to instances of the contrary case in inconsistent inspection practice, where serious deficiencies had gone unrecorded by inspectors. The experience of the inspector on the Agios Athanasios, who found himself on a substandard ship with a clean record in recent past inspections, was a common one. For example, another inspector boarded a ship following a report from the French coastguard that the ship had been drifting broken-down off Ushant; it had a target factor of only 2 and at its last port-state inspection in Spain, only two months previously, no deficiencies had been recorded:

'[The inspector] was decidedly unimpressed by the state of the ship [...]. He said that it was the second ship he'd been on recently which had multiple serious deficiencies, but had a low target factor and had a clean bill of health at its previous recent inspection (with the previous inspection in Denmark).'

The ship inspected following the Ushant incident had fourteen deficiencies listed and only avoided detention by the inspector because it was due to enter dry dock in the next fortnight. Another ship, the Mais, inspected following a complaint by the pilot and detained with ten deficiencies (and subsequently clocking up a remarkable six detentions in Paris MoU ports in the next eight months), had been inspected prior to the original detention only eight days previously in Copenhagen, with zero deficiencies being recorded.

By and large, socio-legal studies writing has viewed globalised industries as commensurately responsive to 'good' regulation, in so far as globalising economic forces can be harnessed for the purposes of virtuous competition in respect of labour standards (eg. Ayres and Braithwaite, 1992). There is however a more pessimistic strain of writing which emphasises the importance of 'place' in understanding regulatory performance (eg. Nelkin, 2002); Haines (2003) has recently written specifically on how national occupational health and safety standards intersect with particular economic, political and cultural contexts. From the latter perspective, cross-national inconsistencies in inspection practice are inevitable and attempts to impose uniformity may simply be a counter-productive legal irritant, particularly among industrialising nations. It was certainly the case in this study that relations between the Indian Mercantile Marine Department and shipping industry interests were more informal and familiar than comparable relationships in the UK and this may reflect broader cross-national cultural differences. In particular, shipping agents played a pivotal role in India alongside inspectors. It was uncommon for Indian port-State inspections to occur without the shipping agent appearing at some point in the inspection process. Agents were on familiar terms with many inspectors, paying calls in the MMD offices, offering inspectors the use of their mobile phones, facilitating transport to-and-from the docks (even dropping inspectors at their homes in the evening), in a way which would have been unwelcome in a UK context. This familiarity between agents and inspectors offered agents opportunities to make requests to inspectors to modify their decisions on deficiencies. Moreover, the Indian

operating system for inspections contained elements of flexibility that materially assisted ships agents and their clients, notably in the facility for 'suspension' of inspections for days (and even weeks) which could allow agents to obtain missing documentation etc, without the penalty of formal detention. The local role of shipping agents is not the only relevant factor here: one might also mention the criticisms of the MMD to be found in Indian business media if detentions are too frequent, and the economic importance of the Indian ship-breaking industry, which means that ships at the end of the their working lives often carry their last cargoes into Indian ports. However, the enhanced mediator role played by shipping agents in Indian commercial culture, what Haines (2003) has called the local 'regulatory character', and it is also necessarily a factor generating cross-national inconsistencies in inspection practices.

Port-State control in the Paris MoU countries and in India is a discretionary system, in contrast to the checklist approach used in some other inspection regimes, such as that of the US Coastguard and the SIRE inspectorate operated by the oil majors, though it should be noted that the latest Paris MoU documentation, for the shipboard use of inspectors, incorporates a checklist element for the first time. However, the very first page of the Paris MoU manual for inspectors clearly states that inspectors are required to use their professional discretion in deciding how detailed an inspection will be. An inspector, who had found no deficiencies in the inspection of one lifeboat, was asked by the captain if he wanted to inspect the other lifeboat: he declined, saying that port-State inspections were 'a sample, not a survey'.

Discretion is a ubiquitous feature of legal processes; it is the means by which systems of governance achieve flexibility and minimise oppressiveness. Discretion allows the efficient use of scarce inspection resources and can provide a 'light touch' approach, which minimises difficulties for responsible operators. However, as Keith Hawkins puts it in his overview of socio-legal studies writings on discretion:

"...While the flexibility of discretion can be valuable in individualising the application of the law, its subjectivism can also be the cause of inconsistency in decision outcomes: apparently similar cases may not be treated in the same way by decision-makers [...]. An obvious corollary [...] is that discretion can impose similar outcomes upon apparently different cases [...]. Secondly, apparent inconsistency is often cited as an example of arbitrary decision-making [...]. A third set of criticisms has to do with the power that discretion grants to officials and the scope for its abuse [...]. For those affected by decisions, discretion can lead to uncertainty and insecurity and, in some legal settings, to intrusive behaviour by officials." (K. Hawkins, 1992: 15-16).

None of the inspectors observed in this study behaved arbitrarily or intrusively. On the contrary, they were frequently models of good behaviour, who went out of their way to be helpful to crew and to other parties. But inconsistency between inspectors was readily observable. Most importantly, as already demonstrated, some inspectors will judge a ship to be substandard and detainable although a previous recent inspection (both in the UK and in other Paris MoU countries) has found no deficiencies at all. Less seriously, particular inspectors were observed to engage in particular inspection practices that were not followed by any other inspectors. For example, only one inspector would routinely check on whether the ship's bell was in place. In part, such differences are a natural consequence of differences in qualifications and experience. But inspectors themselves were also aware that some inspectors were more likely than others to detain ships and to list more deficiencies. These individual differences are evident from inspection records. Over a year in one office, for example, one inspector averaged 1.4 deficiencies per inspection, while one of his colleagues averaged 8.4 deficiencies per inspection. It would seem some inspectors are more effective than others in detecting substandard ships.

Not only did inspectors differ in the number and the nature of the deficiencies that they identified, they also differed in the action they would take to ensure that those deficiencies were rectified. Deficiencies which would lead one inspector to detain a ship might be identified and recorded by another inspector but that second inspector might demand different remedial action. These differences in actions taken were observable cross-nationally, as well as between individual inspectors. In particular, UK inspectors, while being thorough in recording deficiencies would often opt for alternative actions to detention if they believed that these alternatives would achieve their objectives in getting the deficiencies rectified. The case of the ship which avoided detention because it was due in dry dock in another fortnight has already been mentioned. Likewise, when a port-State inspection coincided with a Maltese flag-State survey, a second inspector was happy to simply add his list of (detainable) deficiencies to those found and requiring rectification by the flag-State surveyor. In this way, as the inspector pointed out to the captain, the ship avoided a port-State control detention and so avoided an increased Target Factor and thus an increased likelihood of future inspections. In a third case, an inspector was concerned about the state of some of the crew cabins and the dirtiness of the galley and the galley stores, but he was aware that the ship was destined to be scrapped in Bangladesh in five months time and it was unlikely that the owners would be persuaded to spend much money on repairs:

'[He] believed that detaining the ship would have serious consequences for the crew without making any substantial improvements in the ship [...]. [He] resolved instead to require the captain to oversee a thorough clean-up and part-refurbishment of the neglected cabins (cannibalising some of the unused cabins for better furnishings and fittings0, and to oversee a thorough clean-up of the galley and the provision stores [...]. [He] said that he would return at 12.00 tomorrow to check on the work. At present he was listing these as deficiencies, but tomorrow he would describe them as corrected, if the clean-up was satisfactory. He would also write to the owners about the state of the ship. He told me that he had sometimes adopted this strategy in the past and found it influential'.

And the next day:

"...to check that the crew had complied with [the inspector's] instructions to clean the galley, provision stores and cabins. They had. All the senior officers were mightily relieved that the defects had been rectified. Everyone very jolly. In response to [the inspector's] remark that she hoped to see him again in command of a new ship, the captain actually said with a broad smile that his

chance of getting command of a new ship (currently being built for his company in Korea) had been increased by avoiding detention.'

The decision to detain a ship was not therefore the automatic consequence of the identification of particular deficiencies in labour and health and safety standards. Rather, inspectors simply sought the most effective means of obtaining compliance from owners and crews and the mere threat of detention could serve to secure compliance to the inspector's satisfaction. The inspector who had undertaken the much-publicised detention of a ship for having defective crew bedding remarked to me that the detention might not have taken place had the master in question been more ready to remedy the deficiency K. Hawkins (2002) has shown how prosecution decision-making by the UK Health & Safety Executive proceeds on similar principles and Bittner's (1967) study of police work made an analogous distinction between inflexible 'law enforcement' and flexible 'peace-keeping'... Note however that such discretionary action by the UK inspectorate on ILO standards would not occur if there were other serio us deficiencies detected in ship standards: in such cases, ILO deficiencies would be recorded to strengthen the overall case for detention.

The benefits of a discretionary system are well understood by regulators and inconsistency may therefore be seen as a necessary and worthwhile price to pay. For example, one regulator remarked:

'I tend to think the mariners who do it -most of them at least -try a take a slightly more pragmatic view of the rules. Then once that pragmatism comes into play, then you tend to get inconsistency.'

Such pragmatic inconsistency of course has the unfortunate side-effect of reducing the effectiveness of the targeting system as an incentive to compliance. However, among inspectors themselves there was a strong preference for a discretionary system which allowed inspectors 'to focus one's efforts as appropriate', as one of them put it. But inspectors also recognised differences between inspectors in the willingness of inspectors to operate flexibly. This may be partly associated with differences in experience, with less experienced inspectors adopting a more checklist-type approach. Despite these stated preferences for the use of discretion, there were thought to be cross-national differences in the exercise of appropriate discretion. As one experienced inspector put it at interview:

'There are some nations who detain ships on - its very thin - I certainly wouldn't detain ships for the same reasons. Silly things.

Interviewer: 'That's the thing. I was wondering how much scope there was for individual judgement'

'If the quick closing valves are disconnected. In other words it's not a thing – it could be connected up in five minutes [...] you wouldn't detain it. If they can prove to you while you're on board that they're going to work'

The variable flexibility of inspectors has led some (but not all) operators to prefer a checklist system such as that operated by the US Coastguard and by operators themselves in their ISM systems:

'I think we've got to get away from discretionary systems, definitely'. Interviewer: 'Because it encourages inconsistency?'

'It encourages inconsistency and I don't think a lot of port state control inspectors have got enough intelligence to be able to use discretion. It really is, it's a errible thing to say, but it's very, very true. [...]. I think the [US] Coastguard system is fantastic. I've worked as a master at sea, working on tankers, gas tankers, chemical tankers, trading into the United States. And at least with their system you know where you stand. And if you use their booklet, which is available. And you do your own inspection according to their inspection booklet. And you present that with the dates that you inspected each item, present that to the boarding officer, that guy is so happy because he knows you've been round your own ship using their inspection regime'.

It is, however, a fallacy to suppose that a checklist approach ensures consistency in practice: there are plenty of sociological studies to demonstrate that no rule can specify the occasions of its use (see Bloor, 1980), and that all checklist systems are subject to variable interpretation by operatives. The important issue here is not that of whether or not port state control should move over to a checklist system, but rather that many within the industry believe that there are wide inconsistencies in practice. This perception of inconsistency (regardless of how well founded the perception is) will have a deleterious effect on port state control's accommodative strategy of enforcement, a strategy that seeks to influence operators to make proactive moves to improve ship and labour standards out of a wish to avoid port-State detentions. Operators are unlikely to make such proactive moves if they believe that such detentions are capricious and therefore not readily avoidable through responsible remedial action. Nor will industry stakeholders necessarily factor a ship's detention record into their commercial decisions simply on the bare facts of whether or not a ship has been detained. Instead, they will take a more nuanced approach, examining the basis for the detention and they will draw their conclusions accordingly. For example, this insurer:

'We look at detentions, we look at the length of time detained, **f** it meant or resulted in a delay to a ship. Then I look at the list of [deficiencies] or what they were. [...] The deficiencies that you would think would be serious were those which reflected upon poor management or poor management attitudes, rather than this broken or that broken [...] Basic things: failure to correct charts; oily water separating equipment deficient. Basic things. [...] We approach our clients and take it up with them [...] the [insurance] rate is fixed on claims performance. External factors such as port state detentions do not come into it. But it does come into the fact [of] whether or not we are prepared to give cover. And if something comes up on the port state [inspections] which we are unhappy about, then we may say to ourselves, "Should we still be covering this ship?""

Likewise operators may shrug off queries from charterers and the like, claiming that the detention was unfounded. For example, this operator:

'No longer does a port state control inspection carry any weight [...] they'll often telephone and say: "We see this ship's had a detention". We say: "Yeah It's one of those. We either paid 200 dollars or...".

Some industry stakeholders (some regulators included) claimed that the commercial implications of a detention varied according to the country of inspection. To use, Walls et al's (2004) term, there were wide differences between some national port-State regimes in the 'trust profile' assigned to them by shipping publics, differences which of course may not always have a factual basis in current inspection practice, but which are nevertheless commercially significant as *perceptions* of practice. Inconsistency in inspection practice – between individual inspectors, between ports and between nations - should therefore be a matter of concern. Not just because some inspections are failing to detect deficiencies in ship and labour standards (with consequent risks to maritime safety and pollution), and because poor inspection practice leads to ships being allocated low Target Factors, thus rendering them less liable to future inspections. But also because the perception of inconsistency in inspection practice within the industry weakens commercial motivation to improve standards to avoid future detentions.

# (c) The Priority Accorded to Health and Safety Issues

In the course of the inspection of a 25 year-old general cargo vessel, in an Indian port, the PSCO arrived at the galley. The researcher reported:

'I think this was the dirtiest unhygienic eating place I had seen on any of the vessels. The galley was locked and we had to call the cook to open it. All the food was lying open with thousands of flies on the food. Now, rather than commenting on it, the PSCO asked the cook if he knew how to fight a fire [...] no question on hygiene was asked'.

The inspection of this vessel was very thorough, took five hours and resulted in sixteen deficiencies being noted. But the inspector's exclusive emphasis on technical aspects of health and safety, such as fire-fighting, rather than on hygiene and living and working conditions, was typical of the Indian inspectorate's approach. In contrast to UK inspection practice, it was not normal Indian practice to check medical certificates, rest hours log books, galley, accommodation, or the ship's hospital although all these were observed by the researcher to be checked on at least one occasion during the Indian fieldwork and, in a few cases, deficiencies were recorded. Moreover, not all the inspectors were intellectually convinced of the rectitude of enforcing global standards of living and working conditions: one assiduous inspector expressed a concern that the advocacy of global labour standards was a developed world strategy to inhibit competition in the shipping industry from the developing world. All Indian port-State inspections require the inspector to fill in an inspection report ('Form B'), listing the deficiencies found. Analysis of all Indian Form B reports over twenty three months from January 2002, showed that deficiencies concerning rest hours, accommodation, sick bay, food, galley and stores hardly ever appeared in the reports.

The Russian fieldworkers did note that inspectors routinely checked crew documentation on hours of rest and medical certificates, but inspections of the accommodation, galley, galley store, ships hospital and medical supplies were conducted much less frequently. Only on one ship was the galley store and refrigerated store checked and this inspection occurred only because deficiencies in storage had been noted by an inspector at the ship's previous port and the Russian inspector was required to check that the deficiencies had been rectified. Checks of the galley and accommodation would only occur if triggered by clues such as dirty passage ways and unpleasant smells.

This limited physical inspection coverage is perhaps defensible. Indeed, at interview, inspectors would point out that matters such as accommodation standards were also a flag-State responsibility and should also be covered under the operator's own ISM code (itself a focus for inspection effort in respect of the ship's documentation). And more than one inspector commented on his readiness to respond to crew complaints, while conceding that these were rare because of fear of dismissal:

'Yes, we don't place a lot of emphasis on these problems [...]. But, of course, if during an inspection I see there's no light, no hot water, and the electrical wiring is not insulated, or if there's a foul smell aboard the vessel, then I will make note of this in my report and these deficiencies will have to be remedied. So we can't say that social conditions are not part of our duties. Moreover, during inspections, we are allowed to ask crew members whether they are satisfied with their living conditions or not. Members of the crew can approach us themselves with questions that are of concern to them. From my experience, for instance, there have been situations where seafarers have approached us with grievances about living conditions on their vessels'.

Interviewer: '[...] How often did crew members approach you with complaints?'

" [...] it's more of a rare exception Apparently, they are afraid of the sanctions they will have meted out to them by the ship owners, or the ship's captain, because they are hired hands'.

There is also the view, expressed forcibly by some port health officers, that PSCOs lack the training to undertake proper inspections of food purchasing, food storage, food preparation, infectious disease controls, water intake, maintenance of water supply systems, and the like. It is certainly the case that PSCOs lack the training to fully replicate the range of environmental health checks that port health officers undertake, which for a cruise ship in a UK port was reported by a port health inspector to take around 16 person hours to complete. However, the problems posed by lack of training should not be over-stated, since basic checks of items like temperature gauges in refrigeration stores, or checks for cockroach infestation, require little or no technical expertise.

If not always a priority, the level of attention accorded by UK inspectors to hygiene and living and working conditions was nevertheless very much greater than that typically accorded by their Indian and Russian counterparts. UK inspectors were observed to record as deficiencies items such as insufficient provision of food, the need for refurbishment of crew accommodation, the need for repair of WCs, wash hand basins and showers, the need to clean the ship's hospital, the need to clean provision stores, the need to clear up cockroach infestation, the need for refurbishment of the crew mess, the need to remove date-expired meat, the need to defrost the refrigerated store, the need to replace an unhygienic chopping board in the galley, the need to replace corroded shelves in the galley store, the need for a lid on the crew spin-drier, the lack of curtain between the shower room and the laundry, the removal of a dangerous shower light fitment, the non-recording of hours of work and hours of rest, and the need to replace cracked windows in the crew accommodation. This determination by UK inspectors to enforce regulations on decent living and working conditions was supported by the management of the maritime administration and press releases were issued publicising in the shipping press the UK detention of vessels where there was insufficient food and insufficient blankets.

Nevertheless, the National Audit Office report on UK ship inspections recommended that 'The [Maritime and Coastguard] Agency should give greater attention to human factors in ship safety' (NAO, 2001, p.4). And some (but not all) UK inspectors believed that living and working conditions still did not have high priority in their inspections. As in this email interview:

Interviewer: 'It is sometimes said that ILO-type health and safety issues don't have high priority in port-state inspections. Is that true do you think? Why is it true/false?'

'In my opinion this is probably true. However the emphasis on inspections tends to focus principally around prevention of major accidents, safety of the ship and pollution prevention to minimise loss of life rather to prioritise on crew living conditions, etc'

Similarly, although some inspectors were observed to inspect living and working conditions with thoroughness whenever other areas of the ship gave cause for concern, other inspectors – faced with complex technical and documentation issues – would omit these aspects from their inspection altogether, for reasons of workload. For example, an inspector had gone to inspect a ship following a complaint from the pilot that it was overloaded. He had detained it overnight and returned to complete the inspection the next day. En route to the ship he told me that he did not expect to examine any health and safety issues, having already realised from his visit the previous day that problems of documentation and structural and equipment issues would keep him fully occupied. And indeed he did not inspect the accommodation, galley or crew certificates, although he detained the ship with a total of ten deficiencies, with three separate grounds for detention. It should be noted here parenthetically that the detention of this ship increased its Target Factor and led to its subsequent inspection (and re-detention) in other Paris MoU ports, with further opportunities for living and working conditions to be scrutinised.

It therefore appears that crew health and safety and living and work conditions do not, in general, have high priority in any of the three national inspectorates where the research took place, although in the UK the high level of thoroughness of inspections ensured that these issues were typically addressed, even when they were not accorded high priority. The situation is one which is already recognised by some of the regulators interviewed. For example:

Interviewer: 'What about ILO issues? The criticism that's sometimes made that ILO issues, health and safety issues, seafarers' living and working conditions, don't have the priority that they should?'

'Well they don't frankly. [...] Of course you could find a ship that was disgusting and [then] you'd take action'.

And in this email interview:

Interviewer: 'It is sometimes said that ILO-type health and safety issues don't have high priority in port-state inspections. Is that true do you think? Why is it true/false?'

'This is true. The reason is simple. Most inspectors are people who have been brought up in the industry on technical issues. They are very familiar with SOLAS Convention and other IMO conventions, but not with the ILO conventions. They do not feel easy about checking on social issues.'

At the January 2001 meeting of the Joint Maritime Commission where the resolution to undertake this research was born, the overwhelming impression to be had in talking to delegates was that the main governance problems in respect of labour standards in the shipping industry were ones of enforcement. Although it was at that meeting that the Geneva Accord was launched with the object of consolidating the relevant ILO conventions into a single instrument, most delegates were of the view that there was a wealth of regulation already available (albeit scattered across numerous different conventions). Uniquely for any industry, even seafarers' international minimum wages are regulated. And it has already been demonstrated above that enforcement of existing ILO standards is frequently deficient, with some areas of the ship (such as accommodation) frequently not even visited. However, in respect of at least one important issue – seafarer fatigue – it must be concluded that difficulties in governance lie not primarily in enforcement but in defective regulation.

#### (d) Seafarer fatigue: regulatory or enforcement deficit?

Seafarer fatigue is a critical health and safety issue, playing an important causal role in the incidence of both casualties and ill-health McCallum et al (1996) examined 279 US Coastguard Reports to show that fatigue was a contributory factor in 16 per cent of critical vessel casualties and 33 per cent of personnel injuries. An ongoing fatigue study in Cardiff, collecting shipboard data from 177 seafarers on seven ships in short sea trades, showed that high fatigue scores were directly associated with poorer mental health (Smith et al 2003). While time series data are not available to address the issue systematically, it is suspected that labour intensification (reducing crewing levels, increased multi-tasking, shorter turn port turnarounds, etc) associated with the globalisation of the industry, and the inability of labour to resist such changes, may well indicate that seafarer fatigue is an increasing rather than a diminishing problem (Bloor et al. 2000). Fatigue is a multifactoral phenomenon, caused by a combination of job factors, but the single variable most strongly associated with fatigue is that of working hours (Smith et al 2003).

Port-State inspectors lack the resources to observe most ships in operation at sea, although the feasibility of undertaking some port-State inspections on the high seas has been under consideration in the UK, following a recommendation to this effect by the National Audit Office (2001). Thus, investigation of hours of work and rest must currently be a matter of checking the paperwork. In this study, crew lists and crew certificates of competency were seen to be routinely inspected to ensure that the ship was in conformity with the flag-State Safe Manning document. Likewise, records of hours of work and rest were observed to be routinely inspected in both Russia and the UK (and inspected on occasion in India also) and, on five of the inspected ships, inspectors listed as deficiencies the failure to record the hours of work or rest of at

least some section of the crew. However, it was widely recognised that these paper records were being routinely falsified:

'In his office, the captain talked straightforwardly about the ISM code. Only he and the mate could take a watch, so they naturally worked more than the maximum hours and routinely under-reported their hours.' [UK fieldnotes]

Interviewer: 'To what degree are labour violations monitored during inspections? [...] To what extent can these violations be registered? '[...] it's all logged [...]. This is of course in those cases where logs are maintained and there is no forgery. But forgery is another matter. It's an area for other agencies and inspectors are not competent in this' [Russian interview].

'I [researcher] asked the Chief Officer if I could look through the working hours log of the crew. [Inspector] told me that I will not find anything in that as these are all manipulated and [it is] very difficult to catch anybody unless complaints come from crew members.' [Indian fieldnotes].

As has already been reported, crew complaints on any topic are rare events. Inspections are not normally conducted in such a fashion as to allow crew members to approach inspectors privately and inspectors find it difficult to act on complaints in ways which protect the complainant from exposure. In the following instance, protection of the complainant was difficult but the seafarer concerned was clearly as concerned for his personal safety as about the consequences of being revealed as the source:

'After going through the certificates in the captain's cabin, we made our way to the wheelhouse for [the inspector] to begin his physical inspection. The captain had chosen not to accompany us and [the inspector] was temporarily occupied in fielding some mobile phone calls. A crewman [....] came up to me and asked if we would be making an inspection of the structure of the ship. I said we would. He said we should look at the ship's sideshell behind the banquette sofa in the crew messroom: the steel plates were so corroded that the crew had plugged a hole just above the waterline [there] with a steel bolt and rubber washers. [The crewman] said: "I did not tell you this". I told him I understood. I passed the information on to [the inspector]. We went to the messroom and found two [...] ratings in occupancy, one of them sitting on the sofa, the plywood panelling behind the sofa had plainly been disturbed. [The inspector] politely asked the seafarer to vacate the sofa and found evidence of a lot of corrosion [...] and found the plugged leak. Later on, on deck, [the anonymous complainant] gestured us into the space below [an uncovered vent]: it was largely unused storage space that had once been part of the cargo hold but had been blocked off by a bulkhead. However, the bulkhead was badly corroded and holed, so that there was plenty of scope for the sea to enter the cargo hold via the vent and [then via] the store. I said to [the crewman] that he was a brave man

to point out these defects to the inspector. He said he was sixty two and on his last trip and he was more frightened of foundering than he was of dismissal. Also I think he had some animus towards the captain; he heard [the inspector] telling the captain about the state of the sideshell and, out of the captain's sight, but within my sight, mimed hysterical joy and laughter. Nevertheless, in the captain's company he was careful to appear scornful of the inspection [...]. Both [the inspector] and I were conscious that the dismantling of the sofa would make it appear that we were acting on a tip-off. We did our best to cover this by [also] examining the sideshell behind the officers' mess sofa and inspecting the [sideshell in the] galley between the two [messes]. But I guess it would still appear suspicious to the captain...'

In the entire course of the fieldwork only one crew complaint about working hours was encountered: a note left by the ratings with the port mission and handed on, not to port-state control, but to an ITF [International Transport Workers Federation] inspector:

'Dear Sir: We are the crew's onboard vessel XXXX are seeking for your advice and help for what we are to do best for this situation, regarding the bad management we are experiencing on board. Here are the following grievances that we would like to inform you: 1) They economize on our food, and they like to give all old stocks and even the expired foods to Filipino crew without our knowledge. 2) Overwork but the payment is not enough, sometimes they decreasing our overtime. Even Sunday, that is the only day we can rest, but they are forcing us to work. 3) Discrimination and they think that they are the king and they treated all Filipinos like a slaves. 4) Lack of working clothes supply, even winter clothes. 5) Lack of recreation on board.6) Captain and Chief Engineer don't have any consideration to their crews, they are all Selfish Thank you in advance sir for any help and advices that we will receive from you. Respectfully yours: Crews of XXXX.'

Opportunities offered by some inspectors to crew members to make complaints were not taken up:

'When we first sat down to look at the paperwork, the mate (who looked desperately tired) said he'd not got to sleep until 2.00 this morning. [Inspector]: "Are you complaining about the hours chief?" Mate: "No I am not *complaining*, we are just having a conversation here". Laughter all round.'

The falsification of hours of work and rest and the understandable unwillingness of crews to lodge complaints about excessive hours would be less material if the relevant ILO conventions did not permit 'six-and-six' watch-keeping. One inspector was incensed to discover, on enquiry to his line managers, that he could not list as a deficiency for rectification the hours of work and rest of two engineers working six-and-six watches on a Panamanian-flagged bulker without an automated engineroom:

'In that six hours, they've got to shower and eat – any emergency and they'd be worn out'.

As things stand, the only practical action open to the inspector is to write to the flag-State and ask them to revise the Safe Manning document. It is formally the case that inspectors are empowered to detain ships purely on the basis of their own judgement that watchkeepers are fatigued (see, for example, item 5.8.6, Annex VI, in the MCA regulations on Port State Control [MCA, 1998]). However, all detentions are open to challenge by operators and, as one respondent commented, no inspector would stick his or her neck out to detain a ship on the grounds of crew fatigue unless there was hard evidence of fatigue available to back up their judgement. The Paris MoU has announced that there will be a Concentrated Inspection Campaign (CIC) on hours of work and hours of rest in the autumn of 2004. The Paris MoU guidelines that accompany the Instruction on the CIC (Paris MoU, 2003) suggest that inspectors could be guided in their judgement on whether or not crew are fatigued by reference to an IMO Circular on the recognition of fatigue (IMO, 2001), but the guidance on recognition in the IMO document is also far too vague for inspectors to implement without risk of challenge. It thus seems likely that further enforcement effort by inspectors in this area will have little impact on seafarer fatigue until the regulations on permitted hours of work and rest are amended. If 'six-and-six' watchkeeping were to be outlawed by ILO convention, then the falsification of hours and work and rest would be immaterial: it would be a matter of simple arithmetic for inspectors to demonstrate that crew numbers on particular ships were such that crew could not keep watches except by working excessive and unlawful hours.

It is therefore the case that, in respect seafarer fatigue, regulation is inadequate and, as a result is therefore unenforceable by Port-State Control Officers. The situation is analogous to the problems experienced by PSCOs in respect of fraudulent certifications. Previous SIRC research for the International Maritime Organisation (Obando-Rojas et al forthcoming) demonstrated that the prevalence of fraudulent certificates is high and much the greater part of the frauds are undetectable by eye, so that efforts by inspectors to detect and deter fraud will be almost entirely unproductive: neither seafarers' hours of work and rest, nor fraudulent certifications can, at present, be effectively policed.

It seems likely that inspectors will be asked to undertake progressively more and more work on the enforcement of labour standards. The adoption by more and more flag-States (including the UK) of ILO Convention 178 will certainly have this effect. But if this is to be effective, more thought needs to be given to practical measures which inspectors can adopt in everyday shipboard practice to operationalise many of these new enforcement requirements. For example: by what practical measures will the flag-State establish that crewing agencies are not unlawfully charging seafarers a placement fee?

An increasingly common approach by a host of different agencies involved in the regulation of occupational health and safety has been to encourage employers to set up their own management systems in the workplace which seek to promote a 'safety culture'. The promotion of a safety culture implies a shift in focus in inspectors' workplace inspections, a shift towards a focus on *process*, with inspectors increasingly seeking to establish whether employers have the requisite management

systems in place to self-police breaches in regulation and to encourage managers and employees alike to be proactive in promoting workplace safety: an approach epitomised by the well-known slogan, 'Safety is everyone's business'. In the shipping industry, 'process' regulation has been developed through the International Ship Management (ISM) code. An evaluation of the effectiveness of the ISM code is long overdue and beyond the scope of this research, but PSCOs are tasked with checking that ship ISM systems are operating effectively. It was observed that only the UK inspectors investigated the operation of ISM systems and such checks were not conducted on a routine basis in any of the three inspectorates. Of course, ISM systems should be comprehensive in their coverage and inspections of their operation can only proceed on a sampling basis, so it should not be surprising that none of the PSCOs in this study were observed to check ISM systems pertaining to seafarers' health and safety and living and working conditions. Nevertheless, this was a somewhat disappointing finding since the investigation of ISM systems represents a potential alternative approach to the governance of such ill-regulated areas as seafarer fatigue: PSCOs might potentially enquire, for example, into whether ships' ISM systems have procedures in place to monitor crew for fatigue and procedures in place to relieve and rest fatigued crew.

#### Conclusion

The Port State Control Officers who allowed the researchers to accompany them on their inspections and who answered the researchers' questions are hard-working experienced and knowledgeable professionals. They often work under difficult conditions: we have observed occasions when they have been obstructed, when they have been abused, and when they have been offered inducements. In Russia and India salaries are uncompetitive and there are particular resourcing problems. The great majority of inspectors are ex-seafarers who are committed to saving and improving the lives of their present-day counterparts. Where there remain problems in the governance of health and safety in the shipping industry the blame does not lie with any personal inadequacies of the inspectorate.

Successive OECD reports on the shipping industry have pointed out that some substandard operators are saving a significant fraction of operating costs through regulatory avoidance (OECD, 2001). In the globalised economy, capital flows seek to avoid regulatory compliance costs and some disreputable flag states will offer the appearance of compliance without the substance. In some sectors, this fraction of sub-standard operators depresses freight charges and those operators prepared to meet the cost of compliance find it difficult to make profits. There is a 'Greshams Law of the Sea' (Bloor et al, 2000): just as the Tudor Chancellor, Gresham, found it impossible to improve the standard of the coinage through issuing new coins without the simultaneous withdrawal from circulation of the old clipped and debased coinage ('Bad money drives out good' – Gresham's Law), so also well-found and well-crewed ships will find it impossible to make a profit until the sub-standard ships are driven from the seas.

But the task of Port State Control is more complex than simply the eradication of substandard shipping. The shipping industry suffers from what theorists have represented as 'juridification' (Habermas, 1976; Haines and Sutton, 2003), the increased reliance in late modern societies on securing compliance through detailed instructions rather than less formal systems of authority. Port-State Control is simply one of several sources of juridification, along with operators' ISM codes, charterers' requirements, sectoral inspection systems like the SIRE inspectorate for oil tankers, class inspections, flag-State requirements, port health, customs and the new International Ship and Port Facility Security Code (ISPS). Senior officers must live with this burgeoning mass of instruction while simultaneously operating in an economic environment that erodes their capacity to master and respond to those instructions, an economic environment which intensifies the demands on crew labour. From the perspective of senior ships officers therefore, we can surmise that port-State control is not 'the last defence against total chaos' (the claim of the Head of the Belgian PSC Division – Janssen, 2003), but rather port-State control is simply one more contributory component to an unsustainable burden of paper, which they lack the capacity to address and operationalise, while they know that they will be blamed for any failure of operation. Senior officers and shoreside management alike may fail to respond command regulation through perceived incapacity and the need to hierarchically rank calls on their time.

One regulatory strategy in the face of such unresponsiveness to command regulation is to attempt to make economic competition a driver towards compliance. In the shipping industry this would imply that operators with good regulatory compliance records would be able to command premium freight rates, and that industry stakeholders such as charterers and insurers would shun operators with poor compliance records. Port State control in Paris MoU States has sought to implement this 'virtuous circle' regulatory strategy through the publication of its inspection findings ('name and shame') and the transparency of its targeting system. However, this research has indicated that this strategy has had only partial success, largely because of a continuing degree of inconsistency in inspection practice. As a result, some sub-standard ships continue to operate with a low Target Factor and a correspondingly lower chance of immediate detection. And, more importantly, industry stakeholders are not always convinced that a ship's inspection record is an accurate guide to quality and will factor these more qualified and nuanced judgements about a ship's inspection record into their commercial decisions. Because of inconsistency in inspection practice, some sub-standard ships are thought still to be escaping detection and some good quality ships are thought to have improperly blemished inspection records. Nevertheless, operators have recognised that their inspection record is often a market asset and some prioritise compliance accordingly. The transparency of the Paris MoU system may not have wholly succeeded in creating a virtuous circle but it is nevertheless having some impact on compliance, whereas information on inspections and targeting in India is currently much less widely disseminated and therefore less commercially influential.

While this research supports the view that governance of globalised industries such as shipping can be undertaken with a modicum of success on a cross-national basis (and particularly on a regional basis) important national differences in governance were also readily observable. Local 'regulatory character' (Haines, 2003), the impact of local economic, political and cultural influences on local health and safety standards, was observed to be an important factor in cross-national differences in inspection practices, and particularly in the inspection effort accorded to addressing the governance of seafarers health and living and working conditions. The

inconsistencies in inspection practice arising out of cross-national differences in regulatory character could lead in turn to differences in the 'trust profiles' (Horlick-Jones et al, 2003) accorded to different national maritime administrations by industry stakeholders, which could in turn feed into commercial decisions in the industry about the market impact of ship detention records. Put baldly, a record of a detention at, say, a West African port (see Ozcayir [2001] on extortion by PSCOs) would normally be interpreted as a creditable but wrong-headed attempt to resist extortion by local PSCOs, rather than necessarily being indicative of poor ship or labour standards.

While not all sub-standard ships may have a high Target Factor, it is clear that (even allowing for operators' attempts to rehabilitate a ship after its detention) many of those with a high Target Factor will be sub-standard. Many of those interviewed believed that high Target Factor ships were being driven out of European ports by the constant round of inspections to which they were subjected and by the banning orders placed on ships after three or four Paris MoU detentions. Hard evidence to substantiate this view is currently lacking and there is some contrary evidence available. Take, for example, the case of the Mais, mentioned earlier, still trading in and out of European ports despite six recent detentions and still (at time of writing) not banned. Nevertheless, the fact that so many authorities concur on the deterrent effect of the high Target Factor seems to present a strong case for its effectiveness. However, the official view in the Paris MoU headquarters is less sanguine: 'Port state control results for 2002 indicate that efforts need to be enhanced to obtain a substantial reduction in the number of substandard ships visiting the region' (Paris MoU, 2003). Of course, no deterrent effect of targeting was apparent in the Indian inspection system where there were no instructions to inspectors to target previously detained ships.

Although the majority of listed deficiencies and detainable items relate to ship standards, rather than seafarers' health and safety and living and working conditions, all three maritime administrations in the study were observed to list the latter as deficiencies on occasion. However, the UK inspectorate was more likely than the other two inspectorates to routinely inspect these conditions and to make deficient standards detainable items. Yet even some UK inspectors, faced with a ship that was clearly sub-standard in some respects, would not always extend their inspections to cover labour as well as ship standards. In a situation where some flags are effectively sub-contracting their flag-State inspection responsibilities to class surveyors who are only trained and tasked to survey ship standards, NOT labour standards, this means that, on some sub-standard ships, labour standards are only being scrutinised under the operator's own internal ISM system, not by external regulators. And while PSCOs are tasked to monitor the effectiveness of ISM systems, PSCOs can only monitor the effectiveness of the many operation-specific ISM systems on a sampling basis, and no evidence was found that PSCOs are targeting ISM systems directed at maintaining labour standards, as opposed to ship standards.

The Geneva Accord tasked the Joint Maritime Commission with the consolidation of the ILO regulatory framework on labour, health and welfare standards in the shipping industry. Important regulatory matters remain to be satisfactorily addressed, not least in respect of seafarer fatigue, but effective global governance will depend not just on regulatory reform, but also on effective systems of enforcement. Port-State control has made great strides since its foundation in 1978. However, since flag-State control is, in Lord Donaldson's phrase, 'a broken reed', it is vital that still more attention is given to the development of a system of port-State control that is comprehensive in coverage, adept in detection and targeting, and consistent and transparent in practice.

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# Appendix: Practical suggestions on the governance of seafarers' health and safety and living and working conditions by PSCOs

These suggestions simply derive from the practical experience of the fieldworkers in observing over a hundred ship inspections by a range of different inspectors. They are 'lay' rather than 'expert' suggestions and are not based on technical expertise in, for example, environmental health. Nor should they be regarded as a substitute for existing training materials, most importantly the ILO CD-Rom 'Instructor's Training Manual' (ILO, 2002) and the WHO 'Guide to Ship Sanitation' (WHO, 1998). These suggestions also relate just to cargo ships: it is recognised that passenger ferries and cruise ships present particular inspection problems because of the large number of persons on board, the large number of meals to be prepared, the complexity of drills, etc.

# 1. Galley

Health and safety galley inspections were a normal part of inspection procedure in the UK, but not in Russia and India. Also UK inspections covered a wide range of topics - cleanliness (including clean extractor hood), wash hand basins, fridge doors/seals clean, separate storage of raw and cooked, no pest infestation - but only two inspectors were observed to check the procedure for defrosting. ILO guidelines on coverage of galley inspections are already available.

# 2. Meat store

Only two inspectors routinely checked the temperature was a minimum of  $-18^{\circ}$  and checked for evidence of ice accumulation.

# 3. Water purity

It is clear that many seafarers do not trust the potable water available on their ships and prefer to drink bottled water. Nevertheless, the ship's water is frequently still used for handwashing, washing vegetables, etc, even when bottled water is used for drinking. PSCOs do not ask port health to test water samples because port health cannot get the water tested without good cause and because the test results are often only available after the ship's departure and must therefore be faxed to ship's next port. There is ILO guidance on checking the procedures and equipment for taking water aboard. But a more productive use of PSCOs time might be for them to ask to see the records of water chlorination (ships' hoses, for example should be treated with a chlorine solution of 100 ppm every six months). Failure to keep a fresh water supply maintenance log could perhaps be treated as a deficiency under the enforcement of the ISM code.

# 4. Showers

To avoid risk of Legionnaires Disease, hot water systems should be a minimum of  $50^{\circ}$ , but PSCOs need to check that shower hot/cold mixers work (to avoid risk of scalding). PSCOs could also ask to see records of showerhead chlorination, as with water purity checks above: showerheads should be treated with a 50 ppm chlorine solution every three months.

# 5. Personal Protection Equipment

An as-yet-unpublished international survey (led by the Research Unit in Maritime Health in Esbjerg) has shown a significant minority of crews reporting inadequate or

no personal protection equipment. Again, this issue could perhaps be addressed under ISM enforcement.

# 6. Sanitary towels

Where women seafarers are on board there ought to be facilities for disposal of used sanitary towels/tampons and there ought to be supplies of these in the stores.

# 7. Pre-engagement briefing

ISM procedures should specify that crew undergo a pre-engagement briefing covering pay (and additional allowances), hours of work, length of trip, grievance and harassment procedures, drug and alcohol policies, etc. Checks of ISM systems on labour standards could focus on investigating whether such briefings had occurred.

# 8. Insurance

Recent SIRC research has uncovered some problems with injured seafarers' insurance coverage. Unfortunately, the relevant IMO instrument (A.931[22]) is only a recommendation, namely that a copy of the ship's insurance certification is publicly posted, stating the contact details of the P&I club. Where the certification was not posted this could perhaps be noted as an observation.

# 9. Seafarer Fatigue

This study has already reported that records of hours of work are routinely falsified to cover up excessive hours, especially by watchkeepers, that PSCOs who suspect crew may be fatigued are (quite properly) highly unlikely to act to detain a ship without the backing of hard evidence, and that seafarer fatigue is unlikely to be effectively combated until there are changes in the relevant regulations (either to outlaw continuous six-and-six watches, or to change the principles behind the Safe Manning document so that it no longer merely specified minimum levels of crewing in an emergency). The UK National Audit Office report on ship inspections (NAO, 2001) recommended that a proportion of ship inspections be conducted on the high seas, with inspectors voyaging to the next port: such inspections would be more likely to identify seafarer fatigue but would require appreciably higher levels of resourcing of inspections. In the absence of regulatory change or a partial shift to inspections on the high seas, only two limited suggestions can be made. Firstly, that PSCOs would be better placed to act on excessive hours if they received complaints on hours from the crew (see below) and crew may be more likely to complain if all PSCOs ensured that hours of work were publicly posted. And secondly, that PSCOs could check whether or not the ship's ISM code specified procedures for captains to recognise seafarer fatigue and procedures to take action to relieve it.

# 10. Crew complaints

Many issues on which port-State inspections should focus (accommodation, food, hours of work) will also be a matter for crew discontent: where hours of work are being falsified, for example, this will often mean that crew are working extra hours without pay. Intelligence from crews could be a valuable assistance to inspectors but crew complaints are rarely received (by all three maritime administrations in this study) because crew fear detection and dismissal. The lack of crew intelligence being supplied to inspectors (and the potential value of such intelligence) led the National Audit Office to commend the setting up of a national UK anonymous reporting system, based on the CHIRP system operating in the aviation industry. However, this

new 'CHIRPS' system has only received and investigated a tiny number of crew complaints and complainants are expected to have sought internal redress from the operator before lodging a complaint; it is therefore unlikely that the CHIRPS reporting system will supply much material intelligence to inspectors in the near-future. Instances of crew making complaints to inspectors were observed in the present study but inspectors, while acting on these complaints, did not always take adequate measures to protect complainants anonymity. It would not be appropriate to suggest that PSCOs seek to elicit actively crew complaints without also recommending training or guidance for PSCOs on how to protect complainants' anonymity.

#### 11. Intelligence from other organisations

All three national maritime administrations received intelligence from pilots about sub-standard ships. These reports were nearly always well-founded and illustrate how good intelligence can act as a valuable supplement to any targeting system. However, other agencies routinely boarding ships rarely supply intelligence to inspectors. In the case of port health inspectors, the amount of ship visiting has declined in many UK ports, where port health is simply one of the multiple responsibilities of local Environmental Health inspectors. However, there remain some UK ports where there are specialist port health officers boarding and inspecting large numbers of ships per annum. There is a Memorand um of Understanding between the maritime administration and the Association of Port Health Authorities, but neither the frontline PSCOs nor the port health inspectors thought that information exchange was proceeding satisfactorily: 'It's rubbish, it's not worth the paper it's printed on. It's a pretend thing and it's an insult actually. And that's personally speaking, but I know that's the sentiments of my colleagues here as well [...]. We've given up, basically'. Relatedly, port welfare workers and missions to seafarers are frequent recipients of seafarers' complaints but were more likely to assist seafarers by contacting ITF inspectors than PSCOs: one port welfare worker interviewed felt that his anonymity had not been sufficiently protected by PSCOs when he had acted as a conduit for complaints in the past. Few PSCOs make a practice of calling in at missions. Better local links with port health officers and mission workers might enhance the flow of useful intelligence from these sources.

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