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CONSIDERATION OF A DRAFT INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973

Submitted by Observers from
Friends of the Earth International

Friends of the Earth International (FOEI) in conjunction with various other environmental groups, has carried out an extensive review of the fifth draft of the International Convention for the Prevention of Pollution from Ships, 1973.

In order that the findings arising out of that review can have the widest consideration by the delegates to the Conference we now submit comments relating to the various clauses of the draft Convention. We hope that all delegations will give them their consideration.

In summary our major comments are as follows:

1. Ship-generated oil pollution is clearly the most important environmental problem treated in the Convention. More than 45% of the annual discharge of oil (estimated at up to 5 million tons) into the oceans comes from this source. If positive international action is not taken now this discharge will surely increase. As over 70% of this discharge from ships comes from the normal ballasting, deballasting and tank cleaning operations of oil tankers, we urge that the Conference adopts meaningful discharge limitations to a uniform standard. We also urge that the Convention includes adequate design standards to reinforce the discharge criteria. In this regard, we would strongly support double bottom design and segregated ballast standards.

2. Discharge and design standards will only be meaningful if the Convention includes mandatory enforcement for its provisions.

(a) The Convention must impose uniform, meaningful discharge limitations and stringent design and construction standards

The fundamental requirement of an effective Convention is the establishment of meaningful, uniform discharge criteria and stringent design and construction standards, to guarantee that these criteria are met. Discharge limitations and design standards are intimately related. A discharge limitation may be little more than a pious platitude unless it is reinforced by technologically sound hardware. Reliance on procedures, such as the load-on-top procedure, for example, which depends upon such factors as crew skill and diligence, weather conditions, product type and voyage length, is simply no substitute in most cases for a structural solution, such as that obtained by segregated ballast capacity, to the discharge problem. For the same reasons, it is imperative that the choice of means to achieve discharge limitations not be left open to the Contracting States but be mandated by the Convention itself. With regard to oil pollution in particular - the most significant element of ocean pollution and the major focus of the Convention - it is essential to impose (1) a uniform discharge limitation for all types of oil, (2) a no-discharge limitation, and (3) a structural solution to the discharge problem, i.e. imposition of a segregated ballast/double botton requirement.*

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* We note at the outset that, although tanker casualties result in approximately 18% of tanker-generated oil discharges, neither the Convention nor other international agreements presently in force mandate the incorporation of collision avoidance and manoeuvrability features which might aid in reducing accidental pollution caused by such incidents. Design innovations such as controllable pitch propellers, bow and/or stern thrusters and twin screws/twin rudders, can substantially increase manoeuvrability, thereby decreasing the risk of accident, especially in narrow, crowded and shallow ship channels, while automatic collision avoidance radar plotting systems may further reduce such risks.

(i) One discharge standard for oil - The Convention as now drafted provides for a single discharge standard for "oil or oily mixtures", which are broadly defined in Regulation 1, para. 1, of Annex I, to include "petroleum in any form". However, there is substantial pressure, as suggested by footnote 1(ii) to Annex I, to establish a dual standard, with "persistent" or black oils presumably being subject to more stringent controls than "non-persistent" or white oils. This proposal is environmentally unacceptable. Although white oils may evaporate faster than black oils (but not in turbulent waters), and although their discharge may not always have the same visible effects as the discharge of black oils, i.e., fouling of fishing nets, deposits on beaches, coating of birds and wildlife, etc., the effects of white oil discharges may be subtler and ultimately more harmful for the environment, since these oils, which contain a higher percentage of aromatic and aromatic derivative compounds than crude oils, will have greater toxic effects on marine biota.

The higher toxicity of white as opposed to black cargoes has recently been documented in an environmental impact statement, released on 30 May 1973, by the federal Maritime Administration, of the USA, regarding its tanker construction program at pp. IV-42 through IV-51, and IV-103 through IV-104. Aromatic fractions, many of which are water soluble, are often quite toxic to marine organisms at extremely low levels of concentration, i.e. toxic effects on larvae may occur with concentrations as low as 0.1 ppm. Moreover, concentrations of these hydrocarbons in a range of 10 to 100 ppm may cause behavioural pattern changes, while incorporation of such hydrocarbons in tissues of marine organisms and thus into the food web, has potential public health implications to humans.*

The dangers associated with discharges of white oils are underscored by two further factors. First, white oils are ordinarily primarily carried in coastal trades near sensitive bays, estuaries and coastal breeding grounds. Thus, merely as a result of trade routes, their discharge will tend to produce serious deleterious effects. Second, because they are more water soluble, discharges of ballast water and from oil water separators will contain

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* It is noted that recent studies show that the No.2 grade fuel oils, which are widely used in Europe and North America for domestic heating purposes, are perhaps the most toxic and persistent of all oil fractions.

significant concentrations of potentially toxic materials.* In sum, given the current state of knowledge about the effects of oil pollution on the marine environment, establishment of a dual discharge standard would be wholly unwarranted.

(ii) Meaningful discharge criteria - Any discharge limitations established under the Convention must be the best attainable with existing technology and in accord with Recommendation 92 of the Stockholm Conference. In Annex I, the critical limitations are contained in Regulation 1, paragraph 16, which provides that evidence, based upon an oil content monitoring arrangement, that oil content of effluent does not exceed "[15]" ppm is conclusive of the question that ballast is "clean", while Regulation 9 to Annex I establishes elaborate discharge limitations based upon instantaneous rates of discharge per nautical mile (Regulation 9(1)(a)(iv)) and total quantity discharged as a percentage of cargo (Regulation 9(1)(a)(v)).

The environmental basis for those limitations, as well as for the "visible trace" clean ballast standard in Regulation 1(16) is far from clear and as proposed, they are unacceptable.**

* This latter point is of particular significance with regard to the effectiveness of load-on-top equipment (see discussion infra, at 8), and it underscores the ineffectiveness of this alternative for pollution prevention as compared to a segregated ballast s[illegible]em.

** It should also be noted that the environmental justification for the proposed chemical discharge limitations is not clear. Genera[illegible] limitations on chemical discharges are especially difficult since each substance may have a different degree of dilution, solubility, dispersion, volatility, etc. under varying circumstances, and since the environmental effects of any chemicals are unknown. As with oil, the goal must be the complete elimination of operational discharges, and the current standards embodied in Annex II evaluated in the light of such a goal.

Indeed, they may do little more than codify existing outflow standards which are already met through utilization of load-on-top procedures (currently employed on 75% of existing tonnage). For example, if the Convention were to permit the discharge of 1/30,000th of the cargo of a 300,000 deadweight ton "supertanker" (as is now proposed), this would mean that almost 10 tons of oil could be discharged per voyage, and, assuming 40% ballast, the effluent could contain 100 ppm of oil. As noted above, severe environmental damage can result from very low concentrations of aromatic derivative compounds in sea water. Moreover, permitting any discharge at all adds to the increasing accumulations of oil in the oceans. It has been reported that much of the north Atlantic Ocean is infected with oil globules. (Butler and Morris and Sass, Pelagic Tar from Bermuda and the Sargasso Sea). If seaborne transport of oil increases and if oil tanker numbers and traffic increases as both governments and industry project, the environmental degradation from oil pollution resulting from vessels and their operations will increase proportionally. Thus, even with relatively low discharge standards, adverse environmental effects may result and the accumulation of oil in the oceans will continue to grow.

The objective of the Convention is the "complete elimination" of wilful and intentional pollution of the sea by oil ... to be achieved by 1975, if possible ...". Thus, the Convention should adopt, if possible, a "no discharge" standard. Requiring segregated ballast capacity (see sub-paragraph [iii] below) can essentially achieve this goal, and there thus seems little reason for less absolute standards. In any event, before any proposed discharge standards could be supported, they must be justified environmentally, i.e., the damage to the marine environment produced at visible sheen, 15 ppm, and 60 litre per mile discharge limitations must be set forth and assessed. And, the Convention should only establish discharge criteria which meet the following two conditions: (1) conclusive evidence shows that it is not technologically feasible to reduce discharges below those levels, and (2) conclusive evidence demonstrates that discharges at such levels are not harmful within the meaning of Article 2, paragraph 3.

The figures in brackets in Regulation 1(16) and Regulation 9 referring to parts per million discharges, ship sizes, rates of discharge, and nautical miles from shore, are not supported by any meaningful evidence indicating that they meet these conditions.

(iii) The environmental necessity for prompt adoption of the segregated ballast and double bottom requirements* - As mentioned above, meaningful discharge limitations must be buttressed by stringent design and construction standards. The interweaving of Regulations 11, 13, 15 and 20 of Annex I is thus critical. A requirement that oil carrying vessels possess the capability of carrying sufficient ballast for normal operations without recourse to cargo tanks (Regulation 11(1)(a), Regulation 11(2) and Regulation 13) is without doubt the most effective means for reducing damage to the marine environment from normal ballasting operations. The segregated ballast approach is effective because it eliminates the need to mix oil and water, and to wash cargo tanks to hold ballast which may be clean enough to discharge at a loading port. Moreover, there can be no question as to the environmental soundness of using a double bottom (with a height of B/15) (footnote 33(i) to Annex I) to achieve part of the required segregated ballast capacity. Double bottoms would protect against accidental discharge caused by grounding incidents - the most common cause of tanker casualty - and the redistribution of hull strength resulting from incorporation of a double bottom will reduce or at least delay breaking caused by stranding, thereby reducing the frequency of catastrophic spills. Double bottoms are also likely to reduce operational pollution in at least two ways: (a) the smooth cargo tank bottom resulting from

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* Mention should also be made of Regulation 11, Annex II: We believe that perhaps the principal defect in Annex II is the failure to set out genuine, uniform, enforceable construction requirements for chemical tankers. We question whether the provisions of the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk is sufficient in this regard. In any event, it must be made clear that compliance with the instructions issued pursuant to paragraph 2 is mandatory and enforceable in accordance with the general provisions of the Convention. Otherwise, the regulation is ineffectual.

a double bottom design should eliminate sludge build up and, thus, the need to clean cargo tanks to prevent this occurrence; and, (b) when tanks are cleaned to prepare for dry docking and overhaul, less wash water will be required for cleaning because of the elimination of structural members within the tanks.

The complete environmental advantage of a segregated ballast/double bottom system over load-on-top method (Regulation 15) or shoreside disposal (Regulation 20), is, we believe, beyond question, and is extensively documented in recent US studies.*

Neither load-on-top procedure (even with elaborate oil content monitoring devices) nor shoreside disposal is an acceptable alternative to segregated ballast/double bottom design. To sanction the use of load-on-top procedure as an alternative would amount to nothing more than the maintenance of the status quo. This procedure, even in accordance with Regulation 15, will by no means eliminate oil discharges during deballasting operations, and, at best, it is only 80% effective in removing oil from overboard discharges. Tankers using L.O.T. procedures currently discharge more than 265,000 metric tons of oil annually.**

Similarly, shoreside reception facilities, unless subject to stringent discharge standards which are adequately policed and enforced, may merely transfer marine pollution problems to the shore, and, in fact, concentration of oil pollution in a specific shoreside location may be more harmful environmentally than regulated discharge at sea. Further, their creation may create substantial land use problems and have serious secondary impacts on the areas in which they are located. Finally, at present, the state of the art may not be sufficiently developed to indicate the type of shoreside facility best suited environmentally for each port. Especially as

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* United States Coast Guard, Reports on Parts 1 and 2 of Conference Study 1: Segregated Ballast Tankers (November 1972 and February 1973).

** The original source paper for this figure was a document presented to the Annual Meeting of the Society of Naval Architects and Marine Engineers (USA) 1971.

Regulation 20 is currently drafted, with no provision for the standards which would govern operation of shoreside facilities, it can scarcely be considered an adequate alternative to segregated ballast design.*

Given the environmental advantages of the segregated ballast/double bottom design, and the purpose of the Convention to eliminate operational pollution, we believe that such a design and construction standard should be made mandatory on all oil carrying vessels. Thus, in our view, the bracketed tonnage limitations in Regulation 11, paragraph 2, are far too high and wholly without justification. Study 1 has demonstrated that a segregated ballast/double bottom approach is cost effective down to ships as small as 20,000 deadweight tons. In point of fact, because load-on-top operations may not be able to be engaged in on smaller tankers, because, if such operations are engaged in, they may be relatively ineffective, and because smaller tankers carry cargoes of higher toxicity and often enter shallow, crowded harbour areas, applicability of the segregated ballast/double bottom requirement to such vessels is environmentally necessary.

Not only do we believe that the double bottom/segregated ballast standard should be imposed on all ships, but we believe that the Convention should require application of this standard as soon as possible after entry in force. Recognizing that some lead time may be appropriate in the shipping industry to design and produce a new ship, it would appear that the three year delivery requirement suggested in Regulation 1(5)(b) to Annex I should be the outside limit, while the cut-off dates for application set forth in Regulation 11(2) of Annex I are unduly liberal. Much earlier dates are necessary to meet the objectives set forth in IMCO Assembly Resolution A.237(VII).

The meaning of these cut-off dates is far from hypothetical. As a practical matter, the farther off application of the standards is, the greater the likelihood that the requirements will be ineffective until virtually the year 2000. It is common knowledge that a worldwide shipping boom is underway principally due to the increasing world trade in crude oil and refined products. If the applicable dates in the Convention are put off to 1980, however, it is likely that all the capacity needed to serve world needs in the 1980-2000 period will be constructed prior to such time, and thus the entire purpose of the Convention will be undermined.

*. Needless to say, the suggestion in footnote 32 that in-port disposal be considered, in every case, as a complete alternative to segregated ballast, is completely unacceptable.

(b) The Convention must provide for mandatory enforcement of its provisions

Discharge and design standards will only be effective if they are enforceable. Indeed, the Convention itself is needed in part because of the failure to provide for adequate enforcement mechanisms in the International Convention for Prevention of Pollution of the Sea by Oil, 1954 (the "1954 Convention"). If the Contracting States are given full discretion to enforce or to decline to enforce the provisions of the Convention, or if they are not required to investigate alleged violations, the environmental protective purposes of the Convention may be substantially undercut. As it now stands, much of the language contained in the Fifth Draft is in the alternative, providing for either permissive or mandatory enforcement of various of its provisions. We believe that it is essential that a mandatory approach be adopted. If such mechanisms are incorporated in the final version, the Convention will not only be strong but will provide a significant precedent for future international agreements regulating ocean usage.

(i) Mandatory penalty provisions - Article 4 of the Convention spells out the penalties and jurisdictional criteria to be applied whenever a violation of the Convention occurs. This provision, in either of the two Alternatives presented (Alternative I and Alternative II), provides for prohibition of discharges of harmful substances in violation of the Convention under the law of the Administration of the offending ship (the "flag" State) and/or the law of any other Contracting State when the discharge occurs within its "territorial seas" (the "coastal" State). Leaving enforcement solely to the "flag" State, would virtually guarantee that the Convention would not be fully enforced.

Alternative II appears preferable because it is more inclusive in scope and because it defines more precisely the rights and obligations of the Contracting States. Prohibition of "any violation of the requirements of the present Convention", the operative language in Alternative II, would appear to have a broader scope than the language contained in Alternative I which would only require prohibition of "any discharge of harmful substances or effluent containing these substances in contravention of the provisions of the Regulations".

Presumably the former language provides Contracting States with the power to take action with regard to violation of design and construction standards as well as the actual discharge of effluents in excess of the Convention's limitations.

To work well, enforcement must be as automatic as possible. Thus, the language in Alternative II, which provides that an Administration "shall cause such proceedings to be taken as soon as possible," if it is informed of a violation and is satisfied that sufficient evidence is available to enable proceedings to be brought, is in the interest of a strong, effective, enforceable Convention. If Contracting States merely have an option to prosecute, then there is no assurance whatsoever that the Convention will in fact be enforced. Consequently, we would take strong issue with the suggestion of some delegations (set forth in Footnote 11) that the provisions of Alternative II to Article 4 are too stringent.

Similarly, we believe that the obligation which subparagraph 2 of Alternative II to Article 4 imposes on any Contracting State in whose territorial waters a violation occurs is eminently sensible. Such States should be required either to prosecute or to furnish to the Administration sufficient information and evidence so as to allow such State to prosecute. The entire enforcement package is further reinforced by the requirement in subparagraph 3 of this Alternative that, if such information is furnished to the Administration of the offending ship, then such Administration should inform the State whose waters are affected by the violation of the enforcement actions taken. In this way, there is a clear check, within the confines of the Convention, on enforcement actions taken by an Administration.

The provisions of Article 4 are also improved by the addition of the language suggested in footnote 9. This provision would clearly increase the chances that any particular violation of the Convention would be prosecuted by enabling any Contracting State to cause proceedings to be taken against ships which enter its ports or offshore terminals, regardless of the fact that a violation, i.e., a prohibited discharge, might not have occurred within its territorial waters. Thus, if a ship which violates the requirements of the Convention and which trades on routes that bring it to several different Contracting States is not prosecuted by one of those

States, there is at least a strong likelihood that it will be prosecuted by another. This threat of enforcement would be weakened, however, by the qualifications to the language suggested in footnote 9, which either allow the Administration to preempt the prosecuting State or limit the prosecuting State's jurisdiction over violations, and we would oppose the inclusion of any such qualifications in the final Convention.

Finally, we believe that the adoption of footnote 10 or a similar alternative should be supported, since to limit enforcement of a Contracting State to violations occurring within its "territorial seas" may constitute an unnecessary limitation on its enforcement powers, especially if any law of the sea regime which is ultimately developed would provide for national, pollution control jurisdiction outside the area traditionally designated as the "territorial sea". Enforcement jurisdiction should be given to States for areas under "their national pollution control jurisdiction" (or equivalent language) in order to ensure that the enforcement powers under the Convention are at least co-extensive with any jurisdictional lines established in a future law of the seas agreement.

(ii) Certificates and Inspections - Control over ships required to hold Certificates under the Convention, achieved, in part, through broad inspection rights, is also important to the effectiveness of the Convention. Article 5, paragraph 2, provides that a ship's certificate of compliance must be accepted by an inspecting State unless there are "clear grounds" for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of that certificate. We believe that "clear grounds" are too stringent a test as a precondition for inspection. A State should be able to inspect and exercise control of ships in its ports or offshore terminals without having virtually to establish a violation. Limitations of time and personnel will serve to ensure that inspections are not abused to disrupt commercial activity. Thus, we believe that the language suggested in footnote 14, i.e., "reasonable grounds", should replace the "clear grounds" standard in subparagraph 2, and subparagraphs 4 and 5 of this Article as well.

Stringent action should be taken when it is determined that a ship does not have a valid certificate of compliance, and specification of action open to a State in such circumstances is appropriate. However, the action suggested, ensuring that the ship in violation shall not sail until it can proceed to sea without presenting an unreasonable threat of harm to the marine environment, is not the optimum solution to the problem. Rather, the alternative suggested in footnote 15, namely, that a ship should not be permitted to sail "until such deficiency is corrected", provides greater assurance of protection of the marine environment. At the least, permission for a ship to leave the port or offshore terminal should only be granted if the ship is required to proceed to the "nearest repair yard available", with the additional proviso that no such permission should be granted if the ship would "present a significant threat of harm to the marine environment".

Mandatory denial of access to ports and offshore terminals, with the added exception that entry would be allowed if for repair purposes, as provided for in Article 5, paragraphs 4 and 5, is another important element of effective enforcement of the Convention. Although these provisions are now bracketed, we believe that they should be made part of the final Convention. The strictest language possible is required. Thus, in paragraph 4, reference should be made, as is suggested in footnote 18, to denial of access to a ship which "does not comply with" the provisions of the Regulations rather than to a ship which "is not constructed in accordance with" the provisions of the Regulations. Further, denial of access should be mandatory rather than merely permissive, and we believe that if a Contracting State is "satisfied" that a ship is not in compliance, it need not "establish" such non-compliance. Finally, permission to leave the port or offshore facility under paragraph 5 should be conditioned on the voyage not presenting "a significant threat of harm to the marine environment" rather than "an unreasonable threat of harm to the marine environment".

(iii) Detection of offences - To insure effective enforcement, unnecessary obstacles should not be posed to inspection. Article 6, paragraph 2, as presently drafted, would only permit ships to be inspected in "loading ports". We agree with the suggestion in footnote 21 that the language be expanded

so as to cover ships "in ports and offshore terminals of any Contracting State". Further, addition of the language suggested in footnote 22 to paragraph 2 of Article 6, which would require a report to be made to the appropriate authority if it appears that a discharge has been made or that there is a danger of discharge will strengthen the enforcement web.

In addition, the investigatory provision now contained in Article 6, paragraph 5, should be made mandatory. This provision, combined with the proposals contained in footnote 9 and our proposal to extend investigation beyond loading ports, will, if all are adopted, do much to insure that no violation of the Convention will go undetected or unprosecuted.

(iv) Reporting - Reporting is an integral part of the enforcement mechanism. Any efforts to limit the circumstances under which reports should be made or to provide for permissive reporting should be opposed by the United States delegation. In particular, we disagree with the suggestion made by some delegations, see footnote 32, that subparagraph 6(b) should be deleted. Moreover, we believe that the suggestions made in footnote 33, that reporting should be made with regard to casualties which involve threats of discharge, is appropriate and should be included in the final Convention. Because of the importance of the reporting requirement, we would additionally recommend that the Convention include a sanction, perhaps triggered by a compliance test related to observation of discharges, to enforce the reporting procedure. The requirement of fullest possible reporting will serve to encourage compliance with the Convention and will also provide information regarding the frequency and volume of spills, which, in itself, should prove valuable for future efforts to control ship-generated pollution.

(v) Casualty Investigation - Article 12, paragraph 1, also an element of the enforcement mechanism, would be strengthened by the addition of the proposal contained in footnote 49(ii) which would enable a State to investigate casualties causing pollution which occur in areas generally recognized as international waters but which may affect the waters of the investigating State. Here again, by increasing the number of States which may investigate casualties (or violations of the Convention), the possibility of comprehensive enforcement is enhanced.

(vi) Evidenciary standard to aid in enforcement of discharge criteria - An appropriate evidenciary standard which would aid in the enforcement of the discharge standards is a final element in the enforcement mechanism. As footnote 21 to Annex I indicates, there is unanimous agreement that such a provision is appropriate, at least as regards oil pollution. The four alternatives presented in Annex I for oil, however, vary vastly in quality. Alternative (i) merely provides that evidence of "visible traces ... shall be cause for investigation ....". Alternative (ii) even makes adoption of this evidenciary standard optional. And Alternative (iii) would require that it be "proven" that oil has been discharged. Only Alternative (iv) makes evidence of visible traces in and of itself "sufficient to establish a violation of this Regulation," unless rebutted by evidence to the contrary. Obviously Alternative (iv) is the strongest and best of the present formulations, for it places the burden of disproving an apparent violation upon the alleged violator. If anything, we believe that even this provision might be strengthened, by deleting the requirement that the visible traces be found "in the vicinity of the ship or its wake ...". Oil slicks can be carried over substantial distances and in many directions by ocean currents. If it is known that only one ship has passed through an area where visible traces appear within a given period of time, then even if those traces are not seen "in the vicinity of the ship or its wake", the evidence would seem to be overwhelming that such traces derived from this ship.

(vii) Dispute settlement - Enforcement will be fostered by adequate dispute settlement mechanisms. Of the three dispute settlement alternatives presented in Article 10, we favour adoption of Alternative II (arbitration), and believe that the dispute settlement provisions, contrary to the suggestion in footnote 44, should be made mandatory. Alternative II would formalize a uniform arbitration procedure for handling disputes. It is clearly preferable to Alternative III which is little more than an exhortation to settlement and which would almost necessarily involve time consuming and fruitless discussions over what method to employ for resolving disputes.

Moreover, reliance on the International Court of Justice - Alternative I - would involve a commitment to a slow, arduous and cumbersome procedure and would place highly technical issues before a tribunal which has no special expertise to resolve them. Arbitration, by contrast, which will give each State party to a dispute the power of appointment over one member of the arbitration board and which, in all likelihood, would create a mechanism possessing the technical expertise to enable it to resolve highly technical questions, appears far the most sensible and least time wasting alternative.