INTERNATIONAL MARITIME ORGANIZATION

IMO

LEG 71/3/4
5 August 1994
Original: ENGLISH

LEGAL COMMITTEE -
71st session
Agenda Item 3

CONSIDERATION OF A DRAFT INTERNATIONAL CONVENTION ON LIABILITY AND COMPENSATION FOR DAMAGE IN CONNECTION WITH THE CARRIAGE OF HAZARDOUS AND NOXIOUS SUBSTANCES BY SEA (HNS)

Proposal regarding the second tier

Submitted by Australia, Canada and Norway

TABLE OF CONTENTS

1 INTRODUCTION

1 At its 69th session, the Legal Committee unanimously agreed to set 1996 as the target date for a diplomatic conference on the HNS Convention. At the 70th session, the Legal Committee requested the sponsoring delegations of LEG 70/INF.2 to develop further their paper in light of the discussions at that session (LEG 70/10, paragraph 67). In response, this paper is submitted, as a revised version of LEG 70/INF.2.

2 The paper still deals primarily with the second tier. However, the draft articles relating to the second tier which were attached to LEG 70/INF.2 have not been revised, and therefore are not included in this paper. It is expected that the drafting of these articles will take place in sessions leading up to the 1996 diplomatic conference, and after the Legal Committee has settled all policy issues related to the Convention.

3 The starting point for this paper is the broad adoption at the 69th and 70th sessions of two crucial issues:

a) that a two-tier system, embodied in a single convention, is the most favored approach; and

b) that this approach would be coupled with a post-event collection system.

4 The post-event collection system involves a major development in the concept of the second tier as discussed over the previous sessions. At the request of the Legal Committee, the GTE considered this idea at the 69th session and reported to the Legal Committee that it could devise, within the agreed time-frame, a post-event collection system (LEG 69/11, Annex 2, paragraph 2).

5 The post-event collection system allows us to examine the issues associated with implementation of the second tier, as presented below in Part I and Part II, respectively.

6 Part I addresses only one policy issue - WHO should pay the levy, while Part II deals with practical issues such as HOW and WHEN the levy would be established and paid. Part III deals with Separate Accounts.

2 PART I - POLICY ISSUE: WHO SHOULD PAY THE LEVY?

7 In developing the second tier the most crucial task has been to determine who should pay the levy to the Scheme. The prevailing thinking has been that the "shipper" should be charged with the duty to pay a levy on HNS shipments exported from Contracting States, and that the term "shipper" refers to the exporter.

8 The problem with this approach is that the term "shipper" is ambiguous. Further, the rationale for placing the levy on the exporter has never been clearly developed by the Legal Committee at any time. No rigorous examination of the effects or practical implications of placing the levy on the exporter, or indeed on any other party, has yet been undertaken.

9 The starting point for this proposal is that both shippers and receivers as prospective contributors should be examined, and that the selection of contributors to the HNS levy should be based on an objective assessment of a number of factors, specifically:

economic effects

facilitation of control measures

identification of contributors

responsibility for shipping arrangements

ECONOMIC EFFECTS

10 Until LEG 70/INF.2, economic effects do not appear to have been taken into consideration in determining at which end of the trade the levy should be paid.

11 While the effect of imposing an HNS levy will have some impact on the price of HNS, nevertheless there is an argument, accepted in this analysis, that it is irrelevant for the trade between Contracting States whether the initial burden of payment of the levy is placed on the shipper or the receiver. This is because the economic effect of paying the levy would eventually be equalized by normal market mechanics.

12 However, in cases (which hopefully will be few) where not all exporters are party to the convention, the cost of the levy will have some impact on trading patterns, and must be taken into consideration.

13 This impact can be described as follows: If a levy is paid by an exporter from a Contracting State, this will have to be either absorbed by the exporter, or passed on through an increase in final price. Because exporters in non-contracting states do not have to pay such a levy, their price will be unaffected. This will result in either greater profits or more competitive prices for exporters from non-contracting states.

14 This effect could encourage substitution by importers who may tend to redirect their trade to exporters from non-contracting states, who would not have to pay the levy. Apart from the clear, negative economic effect of this distortion of the market, this would also hinder the acceptance of the convention by "exporting" states.

15 This negative effect could be removed by collecting the levy from the importer. This would mean that a HNS levy would be collected irrespective of its source, and would remove the incentive for the importer to seek alternative sources for its imports. In other words, this would have a neutral economic impact, and would favor neither the exporting or importing state.

16 The proposition has sometimes been put that developing states might be disadvantaged because they are primarily importers of HNS. This has not been demonstrated in any objective way. Most states both import and export HNS to some extent, so there is a self-balancing effect.

17 On this analysis, a levy on importers would be more appropriate in both the cases examined, and would be preferred because of the neutral economic effect.

FACILITATION OF CONTROL MEASURES

18 A common argument for choosing exporters to pay the levy is that they are easier to find, and therefore more administratively convenient to target. This assertion seems to have been taken for granted, but it has never been demonstrated that this would, in fact, be the case.

19 However, even if true, this argument places convenience above other more important considerations. The question has never been addressed whether targeting the exporter over the importer (or vice versa) would produce a

demonstrably better control mechanism (rather than a simpler administrative process).

20 One specific instance is identifiable where exporters and importers are demonstrably different, and where control could be considerably enhanced by placing the burden of the levy on one party rather than another.

21 This difference relates to the customs procedures in place in most countries for the control of exports and imports. While some countries have export procedures, these are generally related to the collection of statistical information, and are not rigorous.

22 On the other hand, every country in the world has very rigorous import procedures, aimed at preventing the importation of dangerous or illegal goods, assessment of customs duties, quarantine assessments and other control requirements.

23 Therefore, established customs procedures provide a "gate" which could readily be adapted for the identification of receivers of HNS cargoes, and the collection of statistical information related to the type and quantity of HNS imported into the country.

24 While this "gate" may not be used in every instance, this facility is nonetheless available and provides an objective and logical reason to select importers for imposition of the levy. Choosing exporters presents no equivalent opportunity.

25 It is acknowledged that special arrangements exist between some states which reduce the rigor of customs entry procedures. The European Union is one example. However, important though they are, these special arrangements do not affect the majority of HNS trade and therefore do not invalidate the proposition.

2.3 IDENTIFICATION OF CONTRIBUTORS

26 The clear identification of contributors has been a hurdle in every discussion of the payment of the HNS levy. Logically, there is little difference between selecting the party which delivers the cargo for carriage, or the party which collects the cargo at destination. While many arguments have revolved around the legal definition of various parties, none has satisfactorily resolved why one would be preferable to the other.

27 The issue, from a legal perspective, is thus relatively neutral, and controls could be set in place to identify exporters or importers just as easily. If there is an advantage it would lean towards importers, again because of the strict customs entry requirements in every country which could be used to facilitate the identification process. Such a "gate" is not available with an exporter based scheme.

2.4 RESPONSIBILITY FOR SHIPPING

28 There is some logic to the view that payment of the levy should be tied, whenever possible, to the party which arranges the shipping. The sensible rationale for this is that responsibility to pay the levy would encourage the use of appropriate and safe shipping.

29 While this linkage may have only a marginal effect on the safety of vessels which carry HNS, it does at least exert a positive influence in that direction. The criteria is therefore relatively neutral, with a slight leaning to importers on the basis that the majority of contracts for transport are made on an FOB basis (i.e., importers arrange shipping).

CONCLUSIONS

30 These four criteria are all capable of some objective analysis, and this has been applied in this discussion. There appears to be clear evidence that, objectively, the choice should be that importers should pay the levy.

31 The availability of the customs "gate" is a strong practical reason for selecting importers. Other effects are more debatable. Discussions at the 70th session of the Legal Committee showed that there was no clear objection to this proposal.

3 PART II - PRACTICAL ISSUES

3.1 DEFINITION OF "RECEIVER" - WHO PAYS?

32 At the 70th session, the Legal Committee gave qualified support to the proposition contained in LEG 70/INF.2 that the receiver of HNS cargo should pay levies under the second tier (LEG 70/10, paragraphs 39-40). This section addresses the definition of the receiver.

33 The proposal in LEG 70/INF.2 was based on the premise that the customs gate would facilitate control for a substantial percentage of the HNS movements into Contracting States. Consequently, the "receiver" should be defined as the person responsible for customs clearance.

34 An important aspect of this approach is that almost every country has a customs gate. However, it was recognized that in some countries (such as the European Union) there may be few, or no, customs procedures. Where customs barriers do not exist, the identification of receivers must rely on different criteria. (This is a problem shared with domestic trade, which is the subject of separate examination by a correspondence group, see section 3.7.)

35 In line with this, the Legal Committee identified the following details for further intersessional consideration in connection with the "who pays" issue in international trade (LEG 70/10, paragraphs 39-40):

> Identification of receivers in instances (such as the European Union) where there are no custom requirements for inbound goods
>
> Possible alignment of the definition of receiver with that used in IOPC.

36 One approach to the question of the identification of the "receiver" is that no exact definition is necessary. It is presumed (on the basis of the IOPC experience) that industry is basically trustworthy, and that peer pressure will ensure that the majority of receivers are identified, and that levies will be paid.

37 However, this is not a strong basis on which to draft a convention, especially in the case where industry sectors are not as homogeneous as is the case of oil.

38 A legally robust means of defining the receiver would be to target:

> the person responsible for custom clearance, where this applies, or
>
> the person who physically receives delivery of the cargo in all other cases.

39 Both of these definitions are relatively simple to administer, and legally easy to define, as they avoid the more difficult test of "ownership".

40 Such an approach would have a certain consistency with the IOPC provisions, which also target the person in a Contracting State who "receives" a certain quantity of Contributing Cargo. While that definition is imprecise, it has worked extremely well jurisdictionally in the IOPC context. While there are clear differences between the oil industry and the HNS industries generally, this experience is still valuable.

41 As it stands, this proposal to target receivers may mean that in some instances intermediaries (such as agents, terminal operators or freight forwarders) may be captured as "receivers", and therefore liable to pay the levy on behalf of their clients.

42 This outcome is not necessarily undesirable in all circumstances, especially if the basic objective of this Convention is to ensure that funds are available to deal with claims arising from HNS incidents.

43 However, it is recognized that these intermediaries are not the principal targets of this Convention, especially as regards the stated purpose of the second tier to ensure that cargo interests share the burden of HNS incidents. Therefore, while intermediaries may be reasonable surrogates for specific cargo interests when these cannot be identified, special effort should be made to avoid liability falling on intermediaries as far as possible.

44 This can be achieved by providing in the Convention that intermediaries should have the possibility of passing on the liability as "receiver" to the party on whose behalf they are acting (i.e., their principals). This opportunity should exist both for the instances where the receiver is caught by the "customs gate" or by the "physical receiver" provisions.

45 Intermediaries in Contracting States should not be able to avoid liability by nominating a principal who is outside the reach of the jurisdiction of that Contracting State.

46 The following draft definition encapsulates the issues raised above:

"Receiver" means the person in a Contracting State who receives any Contributing Cargo discharged in the ports or terminal installations of that State, and who is:

the person who is responsible for customs clearance of a Contributing Cargo, or

where no Custom clearance is applicable, the person who physically receives delivery,

provided that if such person acts as an agent for another, the principal shall be deemed to be the receiver if

- the principal is disclosed, at the time of receipt, and

the principal is subject to the jurisdiction of the Contracting State where the Contributing Cargo is discharged.

This section does not apply to Separate Accounts

3.2 WHO SHALL CONTRIBUTE TO THE SCHEME ON BEHALF OF THE RECEIVER?

47 In the proposed system, the receivers may either contribute directly, as in the IOPC system, or indirectly, through Industry Associations. By way of illustration, this would look as follows:

Receiver ->
Industry Association ------>
Receiver -> Scheme
Receiver ---------->

48 Contribution through Industry Associations is optional. It would give the receivers the advantage of administering the collection of levies in a more cost efficient way than as Independent Receivers. For the Scheme, the advantage lies in the reduced number of contributors to handle.

49 In order to encourage the formation of Industry Associations, the Scheme would charge the individual contributors the same "contributor fee" as charged to an Association. This contributor fee would be charged apart from any levy for payment of claims (when there is one to be paid). The members of an Industry Association would share in the payment of the contributor fee, while Independent Receivers would have to pay the full fee themselves.

50 In principle, each receiver of cargo should be free to decide to contribute either as an individual contributor or through an Industry Association. Similarly, it is not proposed that the geographical scope or the membership terms of Industry Associations be regulated by the Convention. Different receivers may, for example, prefer different membership terms. In some cases, the members may have to put up financial security to the Industry Association and pay according to the same formula as the Association itself; in other cases simpler and cheaper solutions may be preferred. As long as the receivers are free to choose, the most efficient solutions will no doubt be found in each case.

51 In LEG 70/INF.2, it was proposed that contributors to the Scheme should provide financial guarantees that they are able to meet their obligations to the Scheme. It was thought that the Industry Associations could play a useful role in this context. However, in view of various comments received this proposal has not been retained.

THE CONTRIBUTORS TO THE SCHEME ARE PARTLY INDEPENDENT RECEIVERS, AND PARTLY INDUSTRY ASSOCIATIONS THAT ARE CONTRIBUTING IN RESPECT OF THEIR RECEIVER MEMBERS.

THE PROLIFERATION OF THE NUMBERS OF CONTRIBUTORS WOULD TEND TO BE LIMITED BY AN APPROPRIATE CONTRIBUTOR FEE.

3.3 SHOULD LEVIES BE COLLECTED FROM CURRENT CONTRIBUTORS?

52 Regardless of how contributors are organized, the question arises how to deal with claims payable by the Scheme in the years following an incident. The issue is whether contributions in respect of such payments should be made by:

a) contributors of record as at the date of the accident ("event"), or

b) current contributors in any fiscal/collection year when the payment is made.

53 It is now proposed that current contributors should contribute to any claims incurred by the Scheme in any given year. This would avoid the complicated accounting system necessary to keep track of the different sets of contributors to different accidents in the past, and the need to pursue

levy collection from former contributors who might have exited the HNS market.

54 Collection from current contributors makes it important to identify the year in which an expense is incurred by the Scheme. It is envisaged that the Scheme will have some latitude to allocate most of the expected costs of an accident into the account for the year in which the accident occurred (and thus let the contributors of that year pay it all) or, in the event of a very large claim, spread the payments over a number of years. This should ensure the necessary flexibility. In any case, the Scheme must maintain the sound accounting practices of the state in which it is located.

55 In LEG 70/INF.2, it was assumed that the levies on current contributors would not deter prospective member states from becoming Contracting States following a major accident. It appears, however, that this assumption was too optimistic.

56 Nevertheless, this situation could be eased by providing that the receivers of new Contracting States should not contribute towards accidents that happened before that state became a Contracting State. This rule could be handled by the Scheme without practical problems if it uses accounting procedures similar to those adopted by the IOPC Fund.

LEVY WILL BE COLLECTED FROM CURRENT YEAR CONTRIBUTORS, IRRESPECTIVE OF THE DATE OF THE ACCIDENT. RECEIVERS FROM NEW CONTRACTING STATES SHOULD NOT, HOWEVER, CONTRIBUTE TOWARDS PAST INCIDENTS.

3.4 REPORTING AND CONTROL SYSTEM

57 In LEG 70/INF.2, paragraphs 47-51 outlined the reporting and control system that was thought necessary to ensure that the second tier levies were paid by the contributors. The system was based on annual reports by Independent Receivers or Industry Associations. In this paper, these views are elaborated in light of later discussions and, in particular, the desire expressed by many delegations to utilize the IOPC precedents whenever possible.

58 The basis of the proposal is still annual reports, filed by receivers, of the aggregate volume of Contributing Cargoes received in a twelve month period. Industry Associations would report on behalf of their members, while Independent Receivers would report on their own account.

59 The reports for year 1 would be submitted in January-March in year 2, and so on.

60 The advantage of annual reporting is that it removes the complexities associated with the payment of a levy for individual receipts of HNS.

61 It is essential that annual reports have integrity, both in the sense that all receivers submit reports and that the reports are accurate. It should be a task for governments to ensure this integrity. For example, governments would verify that control has been carried out by countersignature on the annual reports, but would not be a guarantor of the correctness of the figures. Obviously, this approach places more responsibility on the governments (as in the IOPC precedent), rather than on the Scheme (as was initially envisaged in LEG 70/INF.2).

62 It is for each government to decide how to organize its own control system. It would not be necessary to organize a watertight system. The control measures should not be unreasonably costly compared to revenue, but would be an "order of magnitude" check. A Contracting State is thus not obliged to set up a control system for short sea voyages or very small

shipments. Such shipments should however be declared in the annual reports of receivers.

63 Some governments may already possess the necessary data for checking the annual reports in their customs records. Another system, already proposed in LEG 70/INF.2, would be to leave it to the parties that are interested in being accepted as Independent Receivers or as Industry Associations to present a trustworthy reporting system which is acceptable to the government in question. Such trustworthy reporting systems could be established in many ways:

a) Some receivers are dependent on reception facilities where movements of cargoes can easily be traced back in time. In these cases, self-reporting may be acceptable without further control, as is the practice under IOPC.

b) An Industry Association may be trustworthy because it represents competitors that will not permit under-reporting of other members

c) Receivers may ask the local government to monitor the cargo movements, and establish a control system for this purpose.

THE CONTRIBUTIONS SHOULD BE BASED ON SELF-REPORTING SYSTEMS ON AN ANNUAL BASIS. IT IS FOR THE CONTRACTING STATES TO ESTABLISH SYSTEMS TO CONTROL THE CORRECTNESS OF THE REPORTED DATA TO A REASONABLE EXTENT.

3.5 THRESHOLDS

64 The function of thresholds is to reduce the administrative burden both on the small contributors and on the Scheme as a whole. A very high threshold might be less equitable on the contributors in the Scheme; on the other hand, a very low threshold may increase administrative workload.

65 It is proposed, therefore, that the annual aggregate threshold for the General Account be set at 20,000 tonnes of HNS received. The aggregate threshold is not product specific, i.e., any shipment of HNS received in any sector will qualify for the calculation of the annual threshold. The threshold should apply to any receiver and any associated receivers, such as subsidiaries.

66 Further consideration was given to the earlier proposal in LEG 70/INF.2 that thresholds be based on HNS points, rather than tonnes of HNS received. The objective of that proposal was to enhance equity in the Scheme, but it has been suggested that the gain, if any, in improved equity will be lost to the additional administrative work which would be required to calculate the HNS points for the purposes of the thresholds alone. Thus, the preference for tonnes as the basis for thresholds, is adopted in this paper.

67 Separate Accounts should establish their own thresholds (see section 4.5).

68 Thresholds should apply to both international and domestic trades (if covered). There should be a single threshold for both international and domestic trades. This would reduce administrative work and would improve equity in the Scheme.

69 Individual receivers that contribute through Industry Associations should retain their individual thresholds. This should not cause a practical problem. Moreover, receivers that constantly receive less than the threshold are unlikely to retain their membership in an Industry Association.

THERE SHOULD BE ANNUAL AGGREGATE THRESHOLD OF 20,000 TONNES FOR REPORTING AND CONTRIBUTION TO THE GENERAL ACCOUNT.

3.6 CONTRIBUTING CARGOES

70 Some issues concerning Contributing Cargoes have already been settled by the Legal Committee. It is thus now clear that

> cargo, and not bunker fuel oils and vessels with residues, should contribute
>
> contributions should be sought from cargoes carried by sea at some stage.

71 There are however still some fundamental issues which need to be discussed. In particular, the Legal Committee asked that specific consideration be given to the contributions from transshipped HNS cargo, and HNS cargo held in storage (see LEG 70/10, paragraph 40, and section 3.6.1). Furthermore, there is a question whether to include in the HNS convention a provision similar to article 10(1)(b) of the IOPC, dealing with cargoes imported by land after a carriage by sea to a non-contracting state (see section 3.6.2), Finally, it is not settled whether the Contributing Cargoes should include all HNS cargoes (bulk or bulk plus; see section 3.6.3).

3.6.1 Refinement of the Definition in Respect of Transhipment, Storage, etc.

72 The definition of Contributing Cargo should ensure that only cargoes which are transported to, and discharged at, a Contracting State will contribute. There should be no ambiguity as to which Contributing Cargo is covered by the Convention.

73 It is submitted that the test of

> "carried as cargo by sea from a state to the territory of a Contracting State, and discharged in that state"

would eliminate any major uncertainty about which cargoes would be eligible to pay HNS contributions in international trade.

74 Under such a definition, HNS cargoes discharged at a non-contracting state, regardless of final destination, would not be a Contributing Cargo. If the cargo is subsequently transported from the non-contracting state to a Contracting State, it would be Contributing Cargo in respect of the latter carriage if it is carried by sea (see Section 3.6.2).

75 The definition also clarifies that HNS cargoes transported from one destination to another by land transportation or by pipeline would not be Contributing Cargoes, and that only cargoes (as opposed to, i.a., bunker fuel oils) shall contribute.

76 In the draft text below, the definition is also extended to cover domestic shipments (see section 3.7).

77 The draft definition also clarifies whether storage and transhipment shall trigger the HNS levy:

> HNS cargo which is "discharged" in a Contracting State would be a Contributing Cargo, even if it is stored for future distribution. This applies regardless of the final destination of the cargo. If destined for another Contracting State, this cargo could attract a second HNS liability.
>
> HNS cargo which is not "discharged" at a Contracting State, but transferred directly or through a terminal installation to another

vessel for transport to its final destination (transhipment), would not be a Contributing Cargo at the transhipment point. In order to align the definition as closely as possible with the IOPC, special provision is made for cargo which is transshipped by way of a storage tank on land. In these cases the cargo would be considered to be Contributing Cargo.

78 The following drafting suggestion is offered to cover these points:

"Contributing Cargo" means any substance included in Annex [2] to this Convention which is carried as cargo by sea:

from a state to the port or terminal installation of a Contracting State, and discharged in that state, or

from one port or terminal installation of a Contracting State to another port or terminal installation of the same Contracting State and discharged within that state.

Cargo transshipped directly or through a terminal installation from one vessel to another shall not be considered to be Contributing Cargo, unless it passes through a storage tank on land.

3.6.2 Imports through Non-Contracting States

79 Article 10(1)(b) of the IOPC provides that cargoes received in a port of a non-contracting state and on-carried to a Contracting State shall be a contributing cargo in respect of the on-carriage, even if the on-carriage is not by sea. The point is obviously to prevent circumvention of the duty to pay contributions by importing through non-contracting states.

80 While it is possible to keep track of on-carriages of large quantities of oil, this may be quite costly in respect of HNS, which includes packaged goods. It might therefore be preferable not to include an article corresponding to article 10(1)(b) of the IOPC in the HNS Convention. There is however a danger that this in certain situations would deter prospective member stated from becoming Contracting States, in order to protect their on-carriage industry. As a precaution, therefore, the article should be included as an option for the Scheme that can be put into operation if and when needed.

81 Separate Accounts may solve this problem differently from the solution proposed here.

AN ARTICLE CORRESPONDING TO IOPC ARTICLE 10(1)(b) SHOULD BE INCLUDED IN THE CONVENTION AS AN OPTION TO BE PUT INTO OPERATION BY THE SCHEME IF AND WHEN REQUIRED.

3.6.3 Bulk and "Bulk Plus"

82 The proposed annual collection system outlined above (see section 3.4), based on aggregate receipts of HNS over a twelve month period is, because of its inherent flexibility of application, capable of a sufficiently detailed level of collection. This removes the need to distinguish between bulk, "bulk plus" and packaged goods. Instead, all receipts of HNS cargo, as defined in article 1.5, should be subject to the levy. For practical reasons, however, some annual thresholds must be established (see section 3.5).

CONTRIBUTING CARGOES SHOULD INCLUDE ALL HNS, SUBJECT ONLY TO ANNUAL AGGREGATE THRESHOLDS.

3.7 DOMESTIC TRADE

83 At the 70th session, the Legal Committee agreed that the application of the second tier contribution system to domestic trade should be further studied by a correspondence group (LEG 70/10, paragraph 57). This paper will therefore be restricted to pointing out that the systems proposed here for international trade could form the basis for a system that applies to domestic trade.

3.8 CALCULATION OF LEVY

3.8.1 The Formula

84 In a post-event system modeled on IOPC, the starting point is that contributions are levied according to the volume (tonnage) of cargo received by each contributor in the year in question. In the case of hazardous and noxious substances this starting point needs some adjustment. Unlike persistent bulk oils, HNS vary considerably both in capacity to cause damage and the quantities of shipment.

85 In previous sessions of the Legal Committee and the GTE, this adjustment was made by multiplying the volume (volume factor, VF) by a hazard factor (HF) and a sector factor (SF), and by calculating the levies on the basis of the product, called HNS Points or HNS Units (VF x HF x SF = HNS Points).

86 The hazard factor represents the inherent ability of the substance to cause damage. The sector factor generally reflects the safety record of the carriage of the product.

87 In earlier proposals, the calculation of the levy was based on the HNS points system. However, that system is thought not to be appropriate for three reasons:

a) Insufficient data exists to estimate the hazard and sector factors with reasonable accuracy. Therefore, these factors have been set quite arbitrarily. Because of this, it is likely that, despite all efforts towards accuracy in its estimation, some contributors might believe that they will have to pay an unreasonably high proportion of the contributions.

b) The hazard factor and the sector factor are dependent variables. For example, an inherently dangerous substance may attract both unfavorable hazard and sector factors, and the VF X HF X SF formula fails to take this into account. In other words, the formula could result in a double penalty and an unfair distribution of contributions.

c) Mechanisms for revising the hazard and sector factors in light of new experience (other than by re-negotiation) have yet to be developed. As a consequence, contributors are likely to be exposed to future revisions of the volume and sector factors that are neither predictable nor governed by stringent rules, or their improved safety record may not be reflected in a revised sector factor. Indeed, the desire of some sectors to form Separate Accounts may be attributed to this element of unpredictability.

TO INCREASE PREDICTABILITY THE HNS POINTS SYSTEM SHOULD BE BASED ON KNOWN, OBJECTIVE FACTS APPLIED THROUGH STRICT RULES.

88 The best criteria for judging the relative liabilities for each sector would eventually be the historical records of the second tier damages as evidenced by claims paid by the Scheme. The liability of each sector would

then be quite independent of relative volumes and theoretical capacities to cause damage, and only one factor would be needed. Within each sector the liability would be proportional to the volume shipped. For example, a sector that has caused 65% of the second tier claims over the previous 10 years would be liable to fund 65% of the claims incurred by the Scheme.

89 Thus, for each sector

HNS points = volume x SF

where SF = damages/volume.

90 A separate hazard factor is not necessary with this new formula, because the damage/volume ratio reflects every aspect of the inherent danger of these substances. Thus the problem of the hazard factor and the sector factor being dependent of each other does not arise.

91 The sector factor could fluctuate every year according to the damage of that year. However, it should be made more stable so that it reflects the general propensity of the sector to cause damage.

92 The easiest way to achieve this is to calculate the damage/volume ratio on the basis of several years' experience (say ten years). In this way, the sector factor would reflect both the inherent hazards of the substances in question and their safety record over an extended period. If safety increases in a sector, it will be rewarded by having to pay a smaller proportion of the Scheme's expenses. On the other hand, a sector with relatively more accidents will contribute relatively more.

93 Provisions for this HNS Points System are attached as Annex 2.

94 A refinement of this proposal could be that the safety records of the more recent years could get added weight if the oldest counting ratio were to count 10% of its value, the ratio of the next 20%, etc (see LEG 70/10, Annex 2, page 4).

95 Examples of a calculation of the levy as suggested in the text above are attached as Annexes 3 and 4.

THE SECTOR FACTOR SHOULD BE THE AVERAGE OF THE DAMAGE/VOLUME RATIOS OF THE LAST TEN YEARS.

96 The approach outlined above makes the definition of sectors crucial. The substances within each sector should ideally not vary too much in their ability to cause harm. On the other hand, there should not be too many sectors. Absolute fairness is not achievable.

97 The proposed sectors are gaseous chemicals, liquid chemicals, solid chemicals and high volume/low hazard substances (e.g., coal; see Annex 1). The mode of transportation - in bulk or as packaged goods - is irrelevant. It is assumed that oils, LNG and LPG will form Separate Accounts (see section 4).

98 Within each of the proposed groups, there is no need to differentiate the contributions other than by tonnage. Combining a high volume/low hazard cargo together with a cargo of low volume/high hazard would however cause cross-subsidization. The Scheme should be empowered to review the sectors.

THE SECTORS SHOULD BE GASEOUS CHEMICALS, LIQUID CHEMICALS, SOLID CHEMICALS AND HIGH VOLUME/LOW HAZARD SUBSTANCES.

3.8.2 Arrangements for the First Years

99 In normal operation of the Scheme, the sector factor will be derived from the claims experience of the previous 10 years of operation. It is obvious that an accurate sector factor cannot be established until the Scheme has been in operation for that number of years. It is envisaged that, in the interim, reliance could be placed in part on certain sector factors agreed in the convention. During the first 10 years of operation of the scheme these agreed factors could gradually be phased out in light of actual experience of claims (or lack of claims) in the different sectors.

100 The agreed factor - called an "initial ratio" - will be included in the formula as if it were a ratio derived from one year of the Scheme's experience. One could, for example, envisage that the initial ratio for a certain sector is 0.1, and the experienced ratios for the first years of the Scheme's existence thereafter are 0.05, 0.25 and 0. In that case, the sector factor for that third year is the average of those four figures, that is 0.1.

101 Used in this way, the importance of the initial ratio will gradually decrease. After 10 years, it will no longer influence the sector factor at all.

102 There is perhaps not sufficient reason to suggest different sector factors for gaseous chemicals, liquid chemicals and solid chemicals. These should therefore all have a sector factor of, say, 0.0001. This is one of many conceivable damages/volume ratios. The actual number is not so important as that it is the same for all three sectors.

103 Because of their inherently low hazard, the initial damage/volume ratios of high volume/low hazard substances should be even lower than that for the three chemical sectors. In LEG 70/INF.2, it was proposed that the sector factor for such substances be set at 0.

IN AN INTERIM PERIOD, THE SECTOR FACTOR WILL BE CALCULATED, IN PART, ON AGREED INITIAL RATIOS, AND, IN PART, ON THE ACTUAL CLAIMS EXPERIENCE.

4 PART III - SEPARATE ACCOUNTS

104 At the 70th session, the Chairman proposed the following elements of a compromise in respect of Separate Accounts (LEG 70/10, paragraph 33):

> The convention should contain a limited number of named accounts.
>
> There would have to be appropriate entry into force conditions to guarantee the viability of the accounts.
>
> The convention would only permit additional accounts by amendments through a protocol.
>
> If an account is unable to meet its commitments, the Assembly, by two-thirds majority, should have the power to suspend the account

105 The proposal was generally welcomed. However, it was stated that further work would have to be done to overcome uncertainty as to the basic requirements which would guide the establishment, functioning and suspension of Separate Accounts (LEG 70/10, paragraph 36). Some delegations also stated their reservation about the abandonment of the criteria to establish or suspend Separate Accounts (LEG 70/10, paragraph 35).

106 While the preference of the sponsors of this paper remains that scheme proposed in LEG 70/INF.2, this section has been developed on the basis of the Chairman's compromise which attracted majority support at the 70th session of

the Legal Committee. Each element of the compromise will be commented on separately.

107 The advice of the Legal Committee that the IOPC precedents should be utilized whenever possible is presumed to apply to Separate Accounts as well as the General Account. Some consequences of this presumption are addressed in section 4.5.

4.1 NAMING OF SEPARATE ACCOUNTS

108 The key element of the Chairman's compromise that "The convention should contain a limited number of named accounts" implies that it is for the diplomatic conference to decide which Separate Accounts, if any, should be established. This element of the Chairman's compromise also abandons the development of any criteria for the establishment of Separate Accounts, thus leaving the diplomatic conference to decide this issue in conceptual, rather than objective, terms. The compromise also abandons

> the idea that the industry shall apply for and prove the viability of Separate Accounts,
>
> the need to establish the financial security of the Separate Accounts, or indeed the monitoring of their financial capacity,
>
> the idea that the industry should administer their own accounts (by means of Management Organizations).

109 However, the sponsoring delegations continue to hold the view that it would not be advisable that the Legal Committee name any Separate Accounts without some solid, factual basis. The sponsoring delegations' advice is that the minimum information requirements should be:

a) information as to the financial viability of the accounts. This information should at the least include an estimate of the aggregate assets/liability ratio of the industry sector and an estimate of the profits earned in the last few years. Satisfactory information in this respect has yet to be presented to the Legal Committee for any of the proposed accounts.

b) a specific request by the industry members of the components to be covered by a Separate Account for the creation of such an account. Such information is particularly lacking for the proposed LPG account.

110 The information should be submitted by the interested industry through one of the delegations to the Legal Committee.

111 One would also need the opinion of the industry on whether the following Separate Accounts are satisfactory, and properly defined:

> oils in bulk and residues therefrom, oils being the substances listed in Annex I, Appendix I to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended.
>
> LNG in bulk, LNG being liquefied natural gases of light hydrocarbons with methane as the main constituent.
>
> LPG in bulk, LPG being liquefied petroleum gases of light hydrocarbons with propane and butane as the main constituents.

112 In particular, it is for the interested industry as a whole to clarify whether the LPG account should encompass refrigerated LPG, pressurized LPG or both.

THE INDUSTRY CONCERNED SHOULD PROVIDE A SATISFACTORY FACTUAL BASIS FOR NAMING SEPARATE ACCOUNTS, EITHER TROUGH A NATIONAL DELEGATION OR A RELEVANT NON-GOVERNMENTAL ORGANIZATION.

4.2 ENTRY INTO FORCE CONDITIONS

113 The second element of the Chairman's compromise deals with entry into force conditions. The point is to ensure that the Separate Accounts will not commence before the trade volume covered by the convention is at a sufficiently high level for that Separate Account to be viable.

114 The starting point should be that the Separate Account would become operational at the same time as the General Account. If an industry sector is of the view that its Separate Account is incapable, for whatever reason, to come into force at the same time as the General Account, then it should be able, by specific request, to seek a postponement. In this interim period, the Separate Accounts substances should be covered by, form sectors in, and contribute to, the General Account. Provisions have to be made in the Convention regulating the details of the interim period, as well as the eventual transition into an operational Separate Account.

115 A named Separate Account which has sought such a postponement, should not operate until the industry sector has advised the Scheme Assembly formally that it is capable of operating independently. Such notices may be somewhat problematic, as the compromise does not require the industry sectors that form Separate Accounts to be organized through any recognizable entity, such as a Management Organization. The practical way of handling this would be to let notices of this kind be submitted to the Scheme by any Contracting State that would, and could, speak on behalf of the industry sector in question.

THE SEPARATE ACCOUNTS SHOULD BECOME OPERATIONAL AT THE SAME TIME AS THE GENERAL ACCOUNT, UNLESS THE INDUSTRY SECTOR GIVES NOTICE THAT THEY PREFER TO STAY AS MEMBERS OF THE GENERAL ACCOUNT UNTIL FURTHER ADVICE.

4.3 ESTABLISHMENT OF ADDITIONAL ACCOUNTS

116 The third element of the compromise requires that further Separate Accounts should be established by way of protocols to the Convention. This implies that all parties to the convention have to agree to the creation of new Separate Accounts, and effectively prevents the proliferation of Separate Accounts.

117 As the parties to the convention must agree if a new Separate Account shall be established, they must also agree on the terms on which the new Separate Account should be established. The original Convention should not bind them in this respect.

118 Additionally, the criteria for the creation of any future Separate Accounts should be no more, or no less, stringent than the criteria used in the naming of the original Separate Accounts.

CRITERIA OR PROCEDURES FOR THE ESTABLISHMENT OF NEW SEPARATE ACCOUNTS SHOULD NOT BE AGREED ON AT THIS STAGE.

4.4 SUSPENSION OF SEPARATE ACCOUNTS

119 The last part of the compromise presupposes that there is a Scheme Assembly, and that this Assembly shall have the power to suspend a Separate Account by two-thirds majority. This calls for clarification in two respects:

> Should the discretion of the Assembly be limited in any way in this matter?
>
> What shall be the effects of suspension?

120 The starting point is that the named Separate Accounts are integral parts of the Convention, and that suspension therefore should be out of the question unless circumstances have changed significantly. The criteria could be that the Assembly, by two-thirds majority, can decide on the suspension of a Separate Account on the grounds that:

> that more than 5% of the contributions are in arrears four months after they have been invoiced, or
>
> that the Assembly finds it likely that the contributors to the account in question cannot cover a claim of the limitation amount.

121 When a Separate Account has been suspended, any new claims would then be covered by the General Account. The members of the suspended account should start reporting to the Scheme and contributing to the General Account. They will contribute towards liabilities already incurred by the General Account to the extent this is the rule for other new contributors (see section 3.3).

122 A particular problem after the suspension of a Separate Account would be any liabilities of that account uncovered at the time of suspension. In this regard, two possibilities exist. The first is that the General Account would not assume any liability for claims of the former Separate Account, and that the individual members of the former Separate Account remain jointly and severally responsible for the payment of these outstanding debts.

123 Alternatively, outstanding claims would be paid by the General Account, in which event the General Account should have the right to recover that debt in due course from the former members of the Separate Account on a joint and several liability basis.

The preference of the sponsoring delegations is for the first option

125 A final question concerning suspension of Separate Accounts is whether provisions should be made for the re-establishment of a suspended account. When the reasons for the suspension no longer exist, the Separate Account could operate as before. However, a suspension will seriously affect the confidence in any Separate Account. Therefore, a suspended Separate Account should not be re-established unless it is agreed in a protocol to the HNS Convention.

A SEPARATE ACCOUNT SHOULD ONLY BE SUSPENDED IF THE PAYMENTS TO IT BECOMES SIGNIFICANTLY IN ARREARS OR ITS FINANCES OTHERWISE ARE WEAKENED. AFTER SUSPENSION, THE SEPARATE ACCOUNT SHOULD MERGE WITH THE GENERAL ACCOUNT. THE GENERAL ACCOUNT SHALL HOWEVER NOT ASSUME ANY LIABILITY FOR CLAIMS ON THE FORMER SEPARATE ACCOUNT.

SPECIAL PROVISIONS FOR SEPARATE ACCOUNTS

126 The Legal Committee has advised that both the General and the Separate Accounts should be modeled on the IOPC. This means that the convention

articles generally can apply to all the accounts. In some cases, however, special provisions are necessary for the Separate Accounts.

127 First of all, special provisions are necessary to define the contributors of the Separate Accounts. The industry sectors that are subject to Separate Accounts may prefer definitions that differ from that in the General Account, so that, i.a.,

> the contributor to the oil account is defined exactly in the same way as in the IOPC
>
> the contributor to the LNG account is the owner of the cargo at the time it crosses the territorial border of the receiving state

128 The Convention should therefore provide for industry sectors to define the contributors that would be covered by their specific sectors. Such definitions would be in line with the Japanese proposal LEG 68/4/4.

129 Secondly, separate thresholds would have to be established for each Separate Account. In the LNG account, no thresholds are likely to be necessary, because all receivers are major receivers. In the oil account, the IOPC threshold of 150,000 tonnes p.a. could be copied.

130 Finally, one has to decide whether the Separate Accounts should have to establish their own standing fund. The purpose of the standing fund is to avoid cash calls for minor claims and administrative costs. In LEG 70/INF.2, it was thought convenient and economical that all accounts shared one standing fund, provided that all expenses paid by that fund were to be refunded by the relevant account when a cash call eventually was made.

131 The arguments for this approach have certainly not been weakened by the Chairman's compromise, as no administrative tasks are left to the Separate Accounts themselves. However, the Legal Committee should be guided by industry when deciding whether there should be one common standing fund for all accounts, or one for each account. The industry views should be expressed well in advance of the diplomatic conference.

THERE SHOULD BE SPECIAL PROVISIONS ALSO FOR THRESHOLDS AND THE DEFINITION OF CONTRIBUTORS TO THE SEPARATE ACCOUNTS.

***

ANNEX 1

THE SECTORS OF SOLID BULK CARGOES

This Annex is substantially the same as LEG 70/INF.2, Annex 1

The list is derived from the Code of Safe Practice for Solid Bulk Cargoes, as amended, Appendix B. The substances on this list contributing to sector III are set out in bold, while the remainder contributes to sector IV (solids of IMO Classes MHB [Material Hazardous when in Bulk], 4.2 and 9). The list does not address the question of which cargoes are Contributing Cargoes.

SUBSTANCE	IMO CLASS
ALUMINIUM DROSS ALUMINIUM RESIDUES ALUMINIUM SKIMMINGS	MHB
ALUMINIUM FERROSILICON **powder (including briquettes)**	**4.3**
ALUMINIUM NITRATE	**5.1**
ALUMINIUM SILICON **powder, uncoated**	**4.3**
AMMONIUM NITRATE **with not more than 0.2% combustible substances including any organic substance calculated as carbon, to the exclusion of any other added substance**	**5.1**
AMMONIUM NITRATE FERTILIZERS (TYPE A)	**5.1**
AMMONIUM NITRATE FERTILIZERS (TYPE B)	9
BARIUM NITRATE	**5.1**
CALCINED PYRITES (Pyritic ash, Fly ash)	MHB
CALCIUM NITRATE	**5.1**
CASTOR BEANS	9
CHARCOAL	MHB
COAL	MHB
COPRA dry	4.2
DIRECT REDUCED IRON, DRI (not to be confused with iron sponge, spent) such as lumps, pellets and cold moulded briquettes	MHB
DIRECT REDUCED IRON Briquettes, hot moulded	MHB
FERROPHOSPHORUS (including briquettes)	MHB
FERROSILICON **containing more than 30% but less than 90% silicon (including briquettes)**	**4.3**
FERROSILICON containing 25% to 30% silicon, or 90% or more silicon (including briquettes)	MHB

FERROUS METAL borings, shavings, turnings or cuttings, in a form liable to self-heating	4.2
FISHMEAL, FISHSCRAP anti-oxidant treated	9
FLUORSPAR (calcium fluoride)	MHB
IRON OXIDE IRON SPONGE	4.2
LEAD NITRATE	5.1
LIME (UNSLAKED) (Calcium oxide, quicklime, dolomitic quicklime)	MHB
MAGNESIA (UNSLAKED) (Lightburned magnesia, calcined magnesite, caustic calcined magnesite)	MHB
MAGNESIUM NITRATE	5.1
METAL SULPHIDE CONCENTRATES	MHB
PETROLEUM COKE calcined or uncalcined	MHB
PITCH PRILL PRILLED COAL TAR PENCIL PITCH	MHB
POTASSIUM NITRATE (SALTPETRE)	5.1
RADIOACTIVE MATERIAL LOW SPECIFIC ACTIVITY MATERIAL (LSA-I)	7
RADIOACTIVE MATERIAL SURFACE CONTAMINATED OBJECT(S) (SCO-I)	7
SAWDUST	MHB
SEED CAKE, containing vegetable oil (a) mechanically expelled seeds, containing more than 10% of oil or 20% of oil and moisture combined MEAL, oily OIL CAKE SEED EXPELLERS, oily	4.2
SEED CAKE, containing vegetable oil (b) solvent extractions and expelled seeds, containing not more than 10% of oil and, when the amount of moisture is higher than 10%, not more than 20% of oil and moisture combined MEAL, oily OIL CAKE SEED EXPELLERS, oily	4.2
SEED CAKE, containing vegetable oil (c) solvent extractions containing not more than 1.5% of oil and not more than 11% of moisture MEAL, oily OIL CAKE SEED EXPELLERS, oily	4.2
SILICOMANGANESE	MHB
SODIUM NITRATE (CHILE SALTPETRE) CHILEAN NATURAL NITRATE	5.1
SODIUM NITRATE and POTASSIUM NITRATE mixture **CHILEAN NATURAL POTASSIC NITRATE**	5.1

SULPHUR (lump or coarse grained powder)	**4.1**
TANKAGE Garbage tankage (containing 8% or more moisture) Rough ammonia tankage (containing 7% or more moisture) Tankage fertilizer (containing 8% or more moisture)	MHB
VANADIUM ORE	MHB
WOODCHIPS	MHB
WOOD PULP PELLETS	MHB
ZINC ASHES **ZINC DROSS** **ZINC RESIDUES** **ZINC SKIMMINGS**	**4.3**

***

ANNEX 2

HNS POINTS SYSTEM

This Annex is substantially the same as LEG 70/INF.2, Annex 2, Appendix A. Provisions for weighing of ratios can be added if desirable.

1. HNS Points are the product of a volume of Contributing Cargo and the sector factor that applies to that cargo for that year.

2. For the purposes of calculating HNS Points, the volume of cargoes is to be measured in metric tonnes.

3. The sector factor is the average claims/volume ratio for the sector in question. When calculating this ratio, the following rules apply:

   (a) The sectors shall be the following subsets of Contributing Cargoes which are not subject to a Separate Account:

   I Gases
   II Liquids
   III Solids not covered by sector IV
   IV Solids of IMO Classes MHB [Material Hazardous when in Bulk], 4.2 and 9, which are also listed in the Code of Safe Practice for Solid Bulk Cargoes, as amended, Appendix B [see Annex 1].

   (b) The claims relevant for the calculation of the claims/volume ratio are the claims relating to the Contributing Cargoes of the sector in question that are entered into the Scheme's accounts of the relevant year. The claims shall be measured in the units defined in article 6, paragraph 9 (a). If two or more sectors are involved in an Incident, whether causing or enhancing the Damage, then the claims shall be equally shared between the sectors for the purposes of calculating the claims/volume ratio.

   (c) The volume relevant for the calculation of the claims/volume ratio is the volume of Contributing Cargo of the sector in question of the relevant year.

   (d) The average claims/volume ratio for any year shall be calculated as an arithmetic average of the claims/volume ratio of that year and of the claims/volume ratios of the previous nine years.

   (e) If, due to the recent entry into force of this Convention, less than 10 of the annual claims/volume ratios referred to in the previous paragraph are available, the sector factor shall be the arithmetic average of the available claims/volume ratios and of an initial ratio. The initial ratio shall have the following values for each sector:

I	Gases	0.0001
II	Liquids	0.0001
III	Solids not covered by sector IV	0.0001
IV	Solids of IMO Classes MHB, 4.2 and 9, which are also listed in the Code of Safe Practice for Solid Bulk Cargoes, as amended, Appendix B	0

***

LEG 71/3/4, Annex 3 - Calculation of Levy without Weighting (Example 1)

Calculation of Sector Factor, Sector A

Damages	Volume	Ratio	Year
0	100 000 000	0	1 (100%)
0	100 000 000	0	2 (100%)
0	100 000 000	0	3 (100%)
0	100 000 000	0	4 (100%)
0	100 000 000	0	5 (100%)
0	100 000 000	0	6 (100%)
0	100 000 000	0	7 (100%)
0	100 000 000	0	8 (100%)
0	100 000 000	0	9 (100%)
6 000 000	100 000 000	0,06	Current (100%)
Sector factor, sector A (average ratio)		0,006	

Calculation of Sector Factor, Sector B

Damages	Volume	Ratio	Year
0	50 000	0	1 (100%)
0	50 000	0	2 (100%)
0	50 000	0	3 (100%)
0	50 000	0	4 (100%)
0	50 000	0	5 (100%)
100 000 000	50 000	2000	6 (100%)
0	50 000	0	7 (100%)
0	50 000	0	8 (100%)
0	50 000	0	9 (100%)
5 000 000	50 000	100	Current (100%)
Sector factor, sector B (average ratio)		210	

Calculation of Sector Factor, Sector C

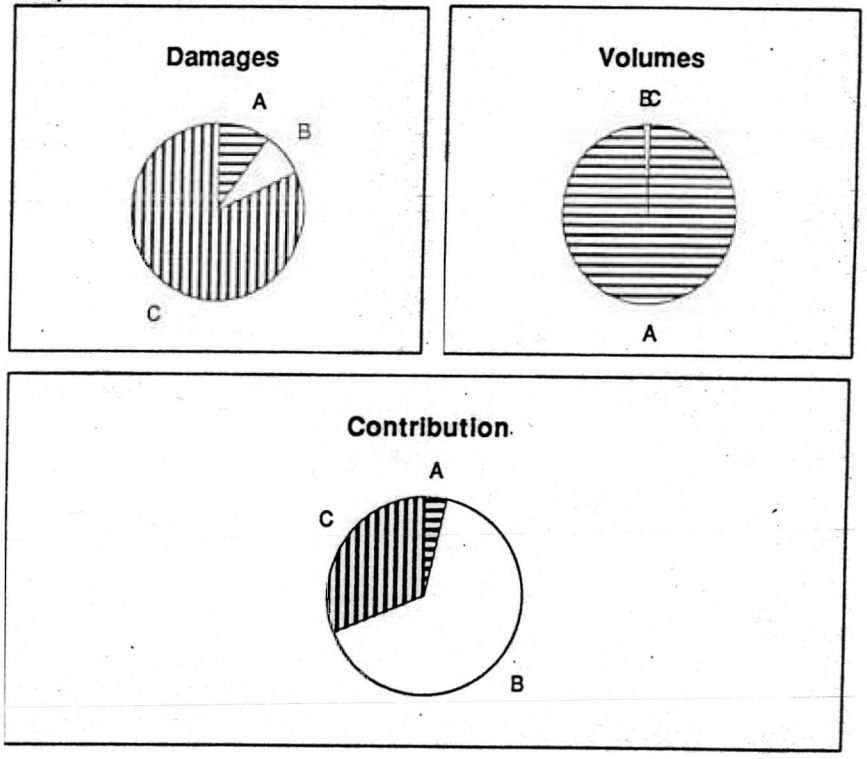
Damages	Volume	Ratio	Year
40 000	1 000 000	0,04	1 (100%)
0	1 000 000	0	2 (100%)
0	1 000 000	0	3 (100%)
0	1 000 000	0	4 (100%)
0	1 000 000	0	5 (100%)
0	1 000 000	0	6 (100%)
0	1 000 000	0	7 (100%)
0	1 000 000	0	8 (100%)
0	1 000 000	0	9 (100%)
50 000 000	1 000 000	50	Current (100%)
Sector factor, sector C (average ratio)		5,004	

Current year volume x average ratio (SF) = HNS points
Total current claims / total HNS points for all sectors
= levy contribution per HNS point 3,79 SDR

Contribution from sector A = volume x SF x HNS point price	2 272 727 SDR
Contribution from sector B = volume x SF x HNS point price	39 772 727 SDR
Contribution from sector C = volume x SF x HNS point price	18 954 545 SDR
Total contributions from all sectors, current year	61 000 000 SDR
Damages, current year (to be covered by the contributions)	61 000 000 SDR

Contribution per ton, sector A	0,02 SDR
Contribution per ton, sector B	795,45 SDR
Contribution per ton, sector C	18,95 SDR

Graphs of Current Year Data



LEG 71/3/4, Annex 4 - Calculation of Levy with Weighting (Example 2)

Calculation of Sector Factor, Sector A

Damages	Volume	Ratio	Year
0	100 000 000	0	1 (10%)
0	100 000 000	0	2 (20%)
0	100 000 000	0	3 (30%)
0	100 000 000	0	4 (40%)
0	100 000 000	0	5 (50%)
0	100 000 000	0	6 (60%)
0	100 000 000	0	7 (70%)
0	100 000 000	0	8 (80%)
0	100 000 000	0	9 (90%)
6 000 000	100 000 000	0,06	Current (100%)
Sector factor, sector A (average ratio)		0,006	

Calculation of Sector Factor, Sector B

Damages	Volume	Ratio	Year
0	50 000	0	1 (10%)
0	50 000	0	2 (20%)
0	50 000	0	3 (30%)
0	50 000	0	4 (40%)
0	50 000	0	5 (50%)
100 000 000	50 000	1200	6 (60%)
0	50 000	0	7 (70%)
0	50 000	0	8 (80%)
0	50 000	0	9 (90%)
5 000 000	50 000	100	Current (100%)
Sector factor, sector B (average ratio)		130	

Calculation of Sector Factor, Sector C

Damages	Volume	Ratio	Year
40 000	1 000 000	0,004	1 (10%)
0	1 000 000	0	2 (20%)
0	1 000 000	0	3 (30%)
0	1 000 000	0	4 (40%)
0	1 000 000	0	5 (50%)
0	1 000 000	0	6 (60%)
0	1 000 000	0	7 (70%)
0	1 000 000	0	8 (80%)
0	1 000 000	0	9 (90%)
50 000 000	1 000 000	50	Current (100%)
Sector factor, sector C (average ratio)		5,0004	

Current year volume x average ratio (SF) = HNS points	
Total current claims / total HNS points for all sectors = levy contribution per HNS point	5,04 SDR
Contribution from sector A = volume x SF x HNS point price	3 024 693 SDR
Contribution from sector B = volume x SF x HNS point price	32 767 512 SDR
Contribution from sector C = volume x SF x HNS point price	25 207 795 SDR
Total contributions from all sectors, current year	61 000 000 SDR
Damages, current year (to be covered by the contributions)	61 000 000 SDR
Contribution per ton, sector A	0,03 SDR
Contribution per ton, sector B	655,35 SDR
Contribution per ton, sector C	25,21 SDR

Graphs of Current Year Data