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CHAPTER FIVE AN ANALYSIS OF THE DOMESTIC LAWS OF MALAYSIA, INDONESIA AND SINGAPORE ON SHIPMENT OF HAZARDOUS AND NOXIOUS SUBSTANCES IN THE STRAITS OF MALACCA 5.1

INTRODUCTION This chapter analyses and compares certain provisions of the domestic laws of the three strait States of Malaysia, Indonesia and Singapore, bordering the Straits of Malacca, on HNS shipments through the Straits of Malacca. A detailed examination of the area shows that there are no statutory provisions on HNS shipments but that there are some provisions which are indirectly related to the shipment of HNS in the Straits of Malacca. One reason that may be proffered for this situation is that the 1996 HNS Convention and 2010 HNS Convention Protocol which are the fundamental convention regarding liability and compensation for HNS spills is not enforced yet and furthermore the 1996 HNS Convention has not been ratified by the strait States. In other words, there is no domestic implementation of the 1996 HNS Convention by strait States and the 2010 HNS Convention Protocol. Malaysia and Indonesia have yet to ratify the 2000 HNS- OPRC Protocol. Therefore, this Chapter analyses (1) laws of Malaysia; (2) The Shanghai Port Experience; (3) laws of Indonesia; (4) laws of Singapore; (5) A Model National Law on HNS and Hazardous Waste Shipments through the Straits of Malacca. 5.2 MALAYSIAN LAWS WHICH ARE INDIRECTLY RELATED TO THE SHIPMENT OF HNS THROUGH THE STRAITS OF MALACCA The Malaysian position on HNS shipments through the Straits of Malacca is analysed under the Federal Constitution and several other sources of domestic laws upon independence of the state in 1957, namely, the 1952 Merchant Shipping Ordinance, the 1969 Emergency Essential Provisions Ordinance, the 2006 Baselines of Maritime Zones Act, the 1974 Environmental Quality Act, the 1984 Exclusive Economic Act, the

2004 Pesticides (Amendment) Act, the 1967 Custom Act 1967 (Revised 1980), the 2004 Malaysian Maritime Enforcement Agency Act, the 2009 Amendment of Continental Shelf, the laws and regulations on dangerous cargoes at Port Klang and the current position prevalent for HNS liabilities, that is, Common law liability in tort.

5.2.1 Malaysian Federal Constitution Malaysia, with a population of 28,625,317¹, a federation of thirteen states in South-East Asia on the Malay Peninsula, consists of two geographical regions divided by the South China Sea, the Peninsular Malaysia or West Malaysia and East Malaysia.

2 The total area covers 329,750 kilometers square, with land area of 328,550 kilometers square and water at 1,200 kilometers square with a coastline of 4,675 kilometers.

3 Malaysia's natural resources include tin, petroleum, iron, ore, natural gas, timber, copper and bauxite. In Malaysia, the Federal Constitution is the supreme law of the Federation and any law passed after Merdeka Day (Independence Day) which is inconsistent with this Constitution is void. The Federal Constitution consists of provisions on the fundamental liberties, citizenship, elections, judiciary and others. Meenakshi Raman observed that in the Federal Constitution, there is no explicit right for a

1 Department of Statistics Malaysia, <http://www.statistics.gov.my>. 12 April 2010, 10.38 am. 2 <http://www.123independenceday.com>. 12 April 2010, 10.38 am. 3 *Ibid.* citizen to a secure, healthy and ecologically sound environment as stated in Article 5. 4 Abdul Haseeb opined that: 5 "In the Federal Constitution of Malaysia, there is no explicit right to a healthful environment. However, this right, like in other countries, falls within the ambit of Article 5, which guarantees right to life and liberty. Thus, we can say that Article 5 of the Federal Constitution of Malaysia implicitly recognizes the right to a healthful environment." Based on the statements made by Meenakshi and Abd Haseeb, it can be inferred that The Federal Constitution has no specific provision relating to the need to protect the marine environment and Abd Aziz Bari stressed that it is better to have an explicit provision spelling out the need to protect the environment as for example the new constitution of Ukraine expressly declares that everyone shall have the right to the environment that is ecologically safe for life and health. 6 However, there are provisions in the Federal Constitution which allow ratification of conventions and treaties for the protection and preservation of the marine environment through Articles 74, 75 and 77 as discussed below. Article 74:....Parliament may make laws with respect to any matters enumerated in the Federal List or the Concurrent List (that is to say, the First or Third List set out in the Ninth Schedule). 4 Mohd Awal, Noor Aziah and Abd Jabar, Siti Faridah, ed., *An Appraisal of Environmental Law in Malaysia*, (Bangi: Fakulti Undang-Undang, 1994). Article 5 (1) of the Federal Constitution: No person shall be deprived of his life or personal liberty save in accordance with law. 5 Ansari, Abd Haseeb, "Right to a Healthful Environment as a Means to Ensure Environmental Justice": An Overview with Special Reference to India, Philippines and Malaysia" [1998] 4 *Malayan Law Journal* xv. 6 Abdul Aziz Bari, "Right to life under the Federal Constitution and Environmental Issues" [1999] 1 *Malayan Law Journal* Article ix. 1)the Legislature of a State may make laws with respect to any of the matters enumerated in the State List (that is to say, the Second List set out in the Ninth Schedule) or the Concurrent List. Article 75: If any State law is inconsistent with a federal law, the federal law shall prevail and the State law shall, to the extent of the inconsistency, be void. Article 76 states that the Federal list of the Malaysian Federal Constitution which relates to HNS shipment in the Straits of Malacca is found in the Ninth Schedule: External affairs, including-

a. Treaties, agreements and conventions with other countries and all matters which bring the Federation into relations with any other country; b. Implementation of treaties, agreements and conventions with other countries; c. International organisations; participation in international bodies and implementation of decisions taken there at. i) Trade, commerce and industry, including- Dangerous and inflammable substances. ii) Shipping, navigation and fisheries including maritime and estuarine fishing and fisheries, excluding turtles. Concurrent List i) Protection of wild animals and wild birds; National Parks. In the early years after independence, environmental problems were considered less important; development priorities were considered paramount. 7 By the 1970's, it had become obvious that available legislation was unable to cope with pollution produced by modern industries. 8 Malaysia realized that-in combination with an economic upsurge and the emphasis on exports-investing in environmental protection becomes increasingly important. 9 This is the only way Malaysia can compete internationally while maintaining a "green image." 10 The country has already been credited by the international community for its engagement in ecotourism. In the 2008 Environment Performing Index, Malaysia ranked 27 th out of 133 examined countries and performed better than countries like Australia, the United States or the Netherlands in addressing environmental challenges. 11 Industrial development and fast urbanization are responsible for major environmental

problems, among them disposal of hazardous and communal waste, pollution of air and water and traffic. 12 The Malaysian government also focuses on environmental aspects in its Ninth Malaysia Plan (9MP, 2006-2010). 13 A few years ago, Malaysia became a member of the United Nations Conference on Environment and Development and other organizations. 14 The Kyoto Protocol was ratified in 2002 and Malaysia represents an attractive spot for CDM projects, above all in the palm oil industry. 15 Malaysia also takes part in the North-South-dialogue to further reduce environmental damages and introduce environmentally sound technologies. 16 Furthermore, special programmes in schools are meant to increase the awareness of 7 Sham Sani, "Environmental Quality Act 1974 Then and Now", (Kuala Lumpur:Lestari, 1997), at 11. 8 Ibid. 9 "Market Watch 2009" The Environmental Sector in Malaysia, <http://74.6.1117.48/search/srpcache> , 21 September 2010, 10 am. 10 Ibid. 11 Ibid. 12 Ibid. 13 Ibid. 14 Ibid. 15 Ibid. 16 Ibid. the public with regards to environmental aspects. The private and the public sector are urged to use and develop adequate product and technologies. 17 In the 2008 budget a sum of RM 1.1 billion was allocated for the implementation of environmental preservation projects as well as to mitigate floods and irrigation. 18 Out of this amount, a sum RM 120 million is allocated for preservation and cleaning programmes of rivers and RM 179 million for solid waste disposal management. 19 The 2009 budget on the other hand focuses on the fields of energy efficiency and renewable energies. 20 The government plans to apply wide tax and duty tariff exemptions to products and equipments with energy saving potential like insulation materials, solar water heating and photovoltaic equipment or efficient lighting. 21 Currently, Malaysia produces about 17,000 tons of waste everyday and this is expected to increase to more than 30, 0000 per day by 2020 due to the growing population. 22 Malaysia has ratified several conventions which are related to the shipment of HNS. As a party, it is obligatory for Malaysia to make its domestic laws in line with the conventions. 23 These conventions are as follows: a) International Convention For the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78); b) International Convention for the Safety of Life at Sea 1974 as modified by the Protocol of 1978 (SOLAS 74/78); c) The 1982 United Nations Convention on the Law of the Sea, (1982 LOSC); 17 Market Watch 2009" The Environmental Sector in Malaysia, <http://74.6.1117.48/search/srpcache> , 21 September 2010, 10 am. 18 Ibid. 19 Ibid. 20 Ibid. 21 Ibid. 22 Ibid. 23 Abdul Aziz Bari, "Right to life under the Federal Constitution and Environmental Issues" [1999] 1 Malayan Law Journal Article ix. d) The 1989 Convention on the Control of the Transboundary Movement of Hazardous Waste and their Disposal (the 1989 Basel Convention) e) The 1998 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; and f) The 2004 International Ship and Port Facility Security Code Conventions relating to maritime laws have been incorporated into Malaysian law in one of two ways; (a) by an Act embodying, in its own words, provisions having the effect of the Convention 24 ; and (b) by an Act embodying the original text of the Convention itself, usually in the Schedule, with separate changes to be made under Malaysian law for the satisfactory operation of the Convention (among the examples are the International Convention For the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978, the 1989 Convention on the Control of the Transboundary Movement of Hazardous Waste and their Disposal and others). 25 Ooi further explained on the implementation of international conventions into domestic laws that

1 Malaysia subscribes to the principle of "dualism", ie an international convention, although subscribed to by a State internationally, could only apply domestically through an Act of Parliament.

26 5.2.2 The 1969 Emergency (Essential Powers) Ordinance Number 7, (as amended) (the 1969 Ordinance) 24 See example the 1952 Merchant Shipping Ordinance (FM Ord No 70 of 1952) s 30 (3), Schedule 8 (load lines), quoted from Malayan Law Journal, Halsbury's Laws of Malaysia, Volume 15 (2002) Shipping [260.0003]. 25 Malayan Law Journal, Halsbury 's Laws of Malaysia, Volume 15 (2002) Shipping, Shipping [260.0003]. 26 Ooi, Irwin, The

1 Malaysian Maritime Enforcement Agency Act 2004: Malaysia's Legal

Response to the Threat of Maritime Terrorism, (2007)

21 A & NZ Mar LJ. In the region of the Straits of Malacca, Malaysia claims a territorial sea of 12 nautical miles and this is reflected in the 1969 Ordinance. However, the measurement of the breadth of the territorial sea is uncertain under the Ordinance. This is because the Ordinance in section 3(2) states that "such breadth shall except in the Straits of Malacca, the Sulu Sea and the Celebes Sea

1 be measured in accordance with Articles 3, 4, 6, 7, 8, 9, 10,11, 12 and 13 of the Geneva Convention on the Territorial Sea and Contiguous Zone (1958). 27 The

1969 Ordinance applies throughout Malaysia 28 . There are several inferences based on the implementation of this 1969 Ordinance; a) the breadth of the

1 territorial waters of Malaysia is twelve (12) nautical miles, however the

measurement of the breadth of twelve nautical miles of territorial waters in the Straits of Malacca is unstated in the 1969 Ordinance; b) the Ordinance is out dated in its references to measuring the territorial sea by referring to the

1 Geneva Convention on the Territorial Sea and Contiguous Zone 1958 (the 1958 Geneva Convention) and not the 1982 LOSC. The

1969 Ordinance fails to recognise that to a large extent the provisions mentioned above in the 1958 Geneva Convention on the Territorial Sea (TSC) are in pari materia with the 1982 LOSC and that under the 1982 LOSC these Articles are used to demarcate the territorial waters of Straits Used for International Navigation such as the Straits of Malacca, a point discussed in Chapter Two of this thesis. Article 3 TSC (normal base-line) is in pari materia with Article 5 (normal baseline) of the 1982 LOSC; Article 4 TSC (indented coastlines) is in pari materia with Article 10 (Straight baselines) of the 1982 LOSC; Article 6 TSC (outer limit 27 Article 2 of 1969 Emergency (Essential Powers) Ordinance Number 7. 28 Ibid. of territorial sea) is in pari materia with Article 4 (Outer limit of the territorial sea) of the 1982 LOSC Article 7 TSC (bays) is in pari materia with Article 10 (bays) of the 1982 LOSC; Article 8 TSC (permanent harbour works, ports) is in pari materia with Article 11 (Ports) of the 1982 LOSC; Article 9 TSC (roadsteads) is in pari materia with Article 12 (roadsteads) of the 1982 LOSC; Article 10 TSC (island) is in pari materia with Article 121 (Regime of islands) of the 1982 LOSC; Article 11 TSC (low-tide elevation) is in pari materia with Article 13 (Low-tide elevations) of the 1982 LOSC; Article 12 TSC (delimitation) is in pari materia with Article 15 (Delimitation of the territorial sea between States with opposite or adjacent coasts) of the 1982 LOSC; and Article 13 TSC (rivers) is in pari materia with Article 9 (mouth of rivers) of the 1982 LOSC. For the regulation of HNS shipments through the Straits of Malacca, this omission in the 1969 Ordinance should be addressed. It is suggested here that the government of Malaysia amend the 1969 Ordinance because the provisions are directed at the 1958

1 Geneva Convention on the Territorial Sea and Contiguous Zone

when it should reflect the provisions of the 1982 LOSC as Malaysia has ratified the 1982 LOSC, therefore obligations under this Convention will prevail over the 1958 Geneva Conventions. 29 This Ordinance does not expressly provide for the regime of transit passage in the Straits of Malacca, which HNS shipping

currently enjoys. Malaysia should enact domestic laws on transit passage in order to cater to the provisions in Part III of the 1982 LOSC. In the meantime, in the absence of provisions on the delimitation of the territorial sea in the Straits of Malacca, Malaysia may rely on the delimitation found in the bilateral agreement with the strait States, between the Republic of Indonesia and Malaysia on Determination of Boundary Lines of Territorial Waters of the Two Nations in the Straits of Malacca. 29 Article 311 of 1982 LOSC. This treaty observes that coast-lines of the two countries confront each other at the Strait of Malacca and the width of the territorial waters of the respective countries is 12 nautical miles. In Malaysia, under section 3 (1) of the 1969 Ordinance the breadth of the territorial sea is to be drawn according to normal baselines and straight baselines that take into account the presence of roadsteads, islands and low-tide elevations. 30 As observed by George, assuming if, we claim 12 nautical miles territorial sea in the Straits of Malacca, the Sulu Sea and the Celebes Sea, it is not stated what baselines provisions ought to be used for the demarcation of these territorial seas. 31 5.2.3 The 2006 Baselines of Maritime Zones Act (the 2006 Maritime Zones) Basically the purpose in discussing this Act is to show the provisions for the purpose of determining the baselines of Malaysia and for other matters connected therewith. The 2006 Maritime Zones Act has nine (9) sections. According to this Act, "chart" means a nautical chart specifically designed to meet the needs of marine navigation, showing depth of water, nature of the seabed, configuration and nature of the coast, dangers and aids to navigation, in a standardized format and such chart is also referred to as marine chart or hydrographic chart; "low-water line" 32 means the intersection of the plane of low water with the shore; the line along a coast or beach to which the sea recedes at low water; "territorial sea" means the territorial waters of Malaysia as determined in accordance with the 1969 Emergency (Essential Powers) Ordinance, No.7 [P.U.(A) 307 A/1969], "continental shelf" means the continental shelf of Malaysia as defined in section 2 of the 1966 Continental Shelf Act [Act 83]; "exclusive economic zone" means the exclusive 30 George, Mary "A Continuum of Ocean law and Policy challenges for Malaysia in the new millennium" in Sy. Ahmad, Sharifah Suhanah, ed., Developments in Malaysian Law Selected Essays, (Kuala Lumpur: Universiti Malaya, 2007) at 109. 31 Ibid. 32 Ibid. economic zone of Malaysia as determined in accordance with the 1984 Exclusive Economic Zone Act [Act 311]; "maritime zones" means the territorial sea, the continental shelf and the exclusive economic zone of Malaysia, or any of them, as the case may be. The

1 baselines for the purpose of determining the maritime zones of Malaysia shall be a) the low-water line along the coast as marked on large scale charts 33 ; the seaward low-water line of a reef as shown by the appropriate symbol on charts; or the low-water line on a low-tide elevation that is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or an island.

Other than the application of normal baselines, the

1 method of straight baselines are interpreted as geodesies joining the consecutive geographical base points so declared may be employed for determining the maritime zones of Malaysia.

34 The 2006 Baselines of Maritime Zones Act supersedes all previously inconsistent provisions on the geographical co-ordinates of base points. 35 Section 3 of this Act pointedly states that the expression "written law" shall not include the Federal Constitution and the Constitution of States. Why this would be the case is rather baffling as laws must be intra-vires the Federal Constitution. 36 Section 5 on Baselines is reflective of the 1982 LOSC in that it provides for four different types of baselines which are the

1 low-water line of a reef as show by the appropriate symbol on charts, or

the low-water line on a low-tide elevation that is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or from an island.

37 The outer boundaries of the maritime zones may be declared

1 by the Yang di-Pertuan Agong on the recommendation of the Minister

33 Normal baseline. 34 Section 5 of 2006 Maritime Zones. 35 George, Mary "A Continuum of Ocean law and Policy challenges for Malaysia in the new millennium" in Sy. Ahmad, Sharifah Suhanah, ed., *Developments in Malaysian Law Selected Essays*, (Kuala Lumpur: Universiti Malaya, 2007) at 109. 36 *Ibid.* 37 *Id* at 110. and may by order be published in the Gazette. 38 According to George, these maps or charts are admissible in evidence as prima facie proof of their contents. Moreover, in any legal or other proceedings, a certificate of the Minister shall be conclusive proof of the contents of the statement without formal proof of the signature or official title of the person appearing to have issued the certificate and be admissible in evidence in such proceedings but its production cannot be compelled. 39 5.2.4 The 1952 Merchant Shipping Ordinance The 1952 Merchant Shipping Ordinance is an Ordinance that consolidates and amends the law with respect to merchant shipping in Malaysia. 40 In addition, there is a considerable body of subordinate legislation made or having effect as if made under the Ordinance 41 . This Ordinance enforces the International Convention for the Safety of Life at Sea (1974) 42 and the International Convention on Load Lines 1966. 43 The related provisions of this Ordinance pertaining to shipment of HNS in the Straits of Malacca are in Part VA under the heading of Pollution from Ships. This section is applicable, among others, to registered Malaysian ships, foreign ships while in Malaysian waters 44 and does not apply to warships or government vessels. "Malaysian waters"

3 means the territorial waters of Malaysia.

The "discharge" means any release of oil or harmful substances from a ship and includes any escape, disposal, spilling, leaking, pumping, emitting or emptying of oil or harmful substances from a ship. Discharge for scientific research, by consent and within the 38 *Id* at 111. 39 *Id* at 111. 40 The preamble of the 1952 Merchant Shipping Ordinance. 41 Example the Merchant Shipping (Collision Regulations) Order 1984 (PU (A) 438/84); the Merchant Shipping (Training and Certification) Rules 1999 (PU (A) 152/99). Halsbury's Laws of Malaysia, Volume 15, Shipping, Malayan Law Journal Sdn Bhd, 2002 at 22. 42 The relevant provisions are in Part V- Safety, Prevention of Collisions of the Merchant Shipping Ordinance 1952 (ss250-306A). 43 The relevant provisions are in Part VI – Load Line And Loading of the Merchant Shipping Ordinance 1952 (ss307-331A). 44 Malaysian waters means the territorial waters of Malaysia, section 306c the Merchant Shipping Ordinance 1952 . terms of the London (Dumping) Convention 1972 is not included. "Harmful substance" means any substance which, if introduce into the sea, is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea. A "maritime casualty" means any event where a ship: a) has been abandoned or is not in command; or b) has received any material damage causing or likely to cause a discharge; or c) has been stranded; or d) has experienced any occurrence on board which results in escape or likely escape of oil or harmful substance or which causes pollution to Malaysians waters, any Malaysian coast or Malaysian reef. The master of a ship in Malaysian waters which experiences a maritime casualty or which has discharged any oil or harmful substance must report such incident to (a) the Port Officer, within 24 hours or as soon as possible, where the ship is in a port; (b) the Director of Marine, as soon as possible, if the ship is outside port. 45 Where oil or a harmful substance is escapes from, or where the Director of Marine is satisfied that oil or a harmful substance is likely to escape from, a ship, then, for the purpose of preventing or reducing the extent of the pollution or likely pollution by the oil or harmful substance of any Malaysian

waters, any part of the Malaysian coast or any Malaysian reef, the Director of Marine, in consultation with the Director General of the Environmental Quality, may by notice in writing 45 Section 306 J (1) of 1952 Merchant Shipping Ordinance. Any person who fails to make such a report is guilty of an offence and is liable on conviction to a fine not exceeding RM 10,000. Halsbury's Laws of Malaysia, Volume 15, Shipping, at 589. addressed to the owner of the ship and served in accordance with the 1952 Merchant Shipping Ordinance, do all or any of the following 46 : a) require such action to be taken in relation to the ship or its cargo as is specified in the notice; b) prohibit the removal of the ship from a place specified in the notice except with his approval, c) prohibit the removal from the ship of any cargo, or any cargo specified in the notice, except with his approval. Amelia opined that Part VA of the 1952 Merchant Shipping Ordinance does not specifically contain discharge standards for the release of oil or harmful substances into Malaysian waters. 47 Where a notice is served and a requirement specified in the notice is not complied, the owner and master shall be guilty of an offence and shall be liable on conviction to a fine not exceeding fifty thousand ringgit in respect of each period of twenty-four hours within the default period. 48 Where oil or a harmful substance has escaped or is likely to escape from two or more ships and it is not reasonably practicable to identify the oil or harmful substance that has escaped from a particular ship, then all the oil or harmful substance that has escaped from those ships will, for the purposes of the 1952 Merchant Shipping Ordinance, be deemed to have escaped from each of the ships. 49 New section 306 CA of the 2007 Merchant Shipping (Amendment and Extension) Act prohibits the discharge of oil and harmful substances into any part of 46 Section 306 D (1) of 1952 Merchant Shipping Ordinance. This provision applies to ships registered in Malaysia and to foreign ships in Malaysian waters : section 306 D(6). Halsbury's Laws of Malaysia, Volume 15, Shipping, at 591. 47 Amelia Emran, The regulation of vessel-source pollution in the Straits of Malacca and Singapore, (Thesis Master of Maritime Studies (Research)), University of Wollongong, Wollongong, 2007 at 127. 48 Section 306F of 1952 Merchant Shipping Ordinance. 49 Section 306H of 1952 Merchant Shipping Ordinance. Halsbury's Laws of Malaysia, Volume 15, Shipping, at 594. 247 Malaysian waters, any Malaysian coast or Malaysian reef. 50 Such discharge is only permissible if the actions could not be prevented, stopped or minimized as a result of some prior unintentional damage and despite taking reasonable precautions or for combating some specific pollution incident which is approved by the Director of Marine Affairs of Malaysia or if it occurs outside Malaysia by the approval of the government of that State. 51 As a strait State, Malaysia has many obligations under the 1982 LOSC which refers to the phrase "generally or internationally accepted rules and regulations" and one such reference is to IMO's SOLAS 74 and amendments thereto, examined in Chapter Three (3) of this thesis. It is argued that the 1952 MSO includes by sheer ratification of the 1974 SOLAS Convention and the 1966 Load Lines, some of the best practices and standards lay down by the IMO for HNS shipment as required in Article 22(2) and 23 of the 1982 LOSC. However, for HNS shipment COLREGS, STCW and MARPOL and IMO Resolutions would also have to be stated expressly and implemented under the 1952 MSO. This makes ratification of the Protocol to the HNS Convention all the more important to a strait State like Malaysia. 5.2.5 The 1974 Environmental Quality Act (Act 127) 52 The level of HNS pollution in the marine waters was discussed in Chapter Two of this thesis. The need to examine this Act arises because The 1974 Environmental Quality Act (EQA 1974) is the most comprehensive environmental legislation in Malaysia and there are several provisions which are related to HNS shipment. We have learnt from the experience of developed countries that environmental problems 50 George, Mary "A Continuum of Ocean law and Policy challenges for Malaysia in the new millennium" in Sy. Ahmad, Sharifah Suhanah, ed., Developments in Malaysian Law Selected Essays, (Kuala Lumpur: Universiti Malaya, 2007) at 122. 51 Ibid. 52 Environmental Quality Act 1974 (Act 127) is an Act relating to the prevention, abatement, control of pollution and enhancement of the environment, and for the purposes connected therewith.. It consists of 51 sections and divided by 6 parts. associated with illegal and indiscriminate disposal of hazardous waste are detrimental to the environment and require costly clean-up measures. 53 The spirit embodied in this act was officially endorsed in the Third Malaysia Plan and continued to be the thrust of the subsequent Five-Year Plans. 54 The fundamental need for sound environmental management in planning and implementation of development programmes as contained in the Five-Year Plans provide the guiding principles for the National Environmental Policy objectives as follows: 55 (the list is not exhaustive) a) to place more emphasis on prevention through conservation rather than on curative measures, inter alia, by preserving the country's unique and diverse cultural and natural heritage; b) to incorporate an environmental dimension in project planning and

implementations of the proposed projects and the costs of the required environmental mitigation measures through the conduct of environmental impact assessment studies; and c) to promote greater co-operation and increased co-ordination among relevant federal and state authorities as well as among the ASEAN governments. These general objectives are complemented and reinforced from time to time by bilateral or multilateral commitments through agreements, resolutions or declarations, such as: 56 a) the Manila Declaration, 1981 b) the Bangkok Declaration on the ASEAN Environment, Bangkok, 1984 53 “Scheduled Waste Management: Issues and Challenges”, Quarterly DOE Update on Environment, Development & Sustainability, Issue 2/2006, <http://www.doe.my> 54 Sham Sani, Environmental Quality Act 1974. Then and Now, (LESTARI: UKM Bangi, 1997), at16. 54 Ibid. 55 Ibid. 56 Ibid. c) the Jakarta Resolution on Sustainable Development, Jakarta, 1987 d) the Manila Summit Declaration, 1987 e) the Langkawi Declaration, 1989 f) the Kuala Lumpur Accord on Environment and Development, 1990. The 1974 EQA has been amended twice; the amendment in 1985 makes it mandatory for prescribed activities to undertake environmental impact assessment and the amendment in 1996 to explicit a significant provision on the control of scheduled wastes in order to fulfil the international commitment in the 1989 Basel Convention. The 1974 EQA applies to the whole of Malaysia. The 1974 EQA consists of twenty one (21) regulations, sixteen (16) rules and fourteen (14) orders 57 . The general scheme of the Act, however, appears to be control oriented rather than geared towards prevention. 58 The 1974 EQA is based on the 'polluter pays' principle, as this principle is illustrated in sections 18-34B, 46E, 47 and 48. In exercise of the powers conferred by Section 51 of the Environmental Quality Act, 1974, the Minister, after consultation with the Environmental Quality Council, may make regulations and orders 59 and there are more than 30 subsidiary regulations and orders in the 1974 EQA. The regulations and orders in the 1974 EQA that relate to shipment of HNS are Environmental Quality (Licensing) Regulations 1977, 60 Environmental Quality (Scheduled Wastes) Regulations 1989 Environmental Quality (Delegation of Powers on Marine Pollution Control) Order 1993 and 57 <http://www.doe.gov.my/en/content/environmental-quality-act-1974> ,4 April 2010, 2 pm. 58 Abdul Ghafur Hamid, “ Malaysia’s Commitments Under International Conventions And The Need For A Harmonized Legal Regime Regulating Marine Pollution” (2007) Volume 6 The Malayan Law Journal Articles 124-144. 59 Section 51 of 1974 EQA. 60 Under Parts III and IV of 1974 EQA, it is stated that all “prescribed premises” must be licensed, and that the

3 Minister after consultation with the Council “may by order prescribe the premises (hereinafter referred to as prescribed premises) the occupation or use of which by any person shall, unless he is the holder of a licence issued in respect of those premises, be an offence under this Act.

Sham Sani, Environmental Quality Act 1974. Then and Now, (LESTARI: UKM Bangi, 1997), at18. Environmental Quality (Delegation of Powers on Marine Pollution Control) Order 1994 61 and the Environmental Quality (Scheduled Wastes) Regulation 2005. It is important to note that the Environmental Quality (Schedule Wastes) Regulation 1989 62 has been revoked

2 in order to improve the management of scheduled wastes resulting in the

coming into force of the Environmental Quality (Schedule Wastes) Regulation 2005. The Environmental Quality (Schedule Wastes) Regulations 2005 came into force on 15 August 2005 and are categorised based on type of waste rather than the source of origin of the wastes. 63 The new provisions instituted in the regulations include the special management of waste, limiting the amount and duration of waste, training for persons handling scheduled wastes and an improvement in labelling requirements. 64 Scheduled wastes are now categorised under five groups 65 : a) Metal and metal-bearing wastes; b) Wastes containing principally inorganic constituents which may contain metals or organic materials; c) Licensing of scheduled waste facilities; d) Treatment and disposal of waste at prescribed premises; and e) Implementation of the manifest system for tracking and controlling movement of wastes. 61 The Director General of Environmental

Quality delegates his powers to investigate offences under section 29 of the EQA 1974 to any Police Officer commanding a vessel, or appointed Police Officer, of the Royal Malaysia Police. 62 The Environmental Quality (Scheduled Wastes) Regulations 1989, the regulations for the control of scheduled wastes are based on the "cradle-to-grave" concept where generation, storage, transportation, treatment and disposal are regulated. A total of 107 waste categories are prescribed as scheduled wastes. The regulations focused on the following key provisions: 1. Control of the generation of waste by a notification system; 2. Avoidance of minimization of waste generation; 3. Safe storage of wastes; 4. Licensing of scheduled waste facilities; 5. Treatment and disposal of waste at prescribed premises; and 6. Implementation of the manifest system for tracking and controlling movement of wastes. "Scheduled Waste Management: Issues and Challenges", Quarterly DOE Update on Environment, Development & Sustainability, Issue 2/2006, <http://www.doe.my> 63 Ibrahim, Rosnani, "Waste Not What Not", (2006) Issue 2/2006, Quarterly DOE Update on Environment, Development & Sustainability. 64 Ibid. 65 "Scheduled Waste Management: Issues and Challenges", Quarterly DOE Update on Environment, Development & Sustainability, Issue 2/2006, <http://www.doe.my>. Among the duties and functions of the Director General are to

3 administer this Act and any regulations and orders, to be responsible for and to co-ordinate all activities relating to the discharge of wastes into the environment and for preventing or controlling pollution and protecting and enhancing the quality of the environment.

66 Section in the 1074 EQA the definition of "environmentally hazardous substances"

3 means any natural or artificial substances including any raw material, whether in a solid, semi solid or liquid form,

or in a mixture of at least two of these substances, or any living organism intended for any environmental protection, conservation and control activity, which can cause pollution of "Malaysian waters" which

1 means the territorial waters 67 of Malaysia as determined in accordance with the Emergency (Essential Powers) Ordinance, No. 7 1969. The

1974 EQA will not cover the transit passage in the Straits of Malacca, henceforth that area will be seen as if without legislation. This is because the EQA 1974 territorial sea is

1 determined in accordance with the 1969 Emergency (Essential Powers) Ordinance, No 7.

"Pollutants"

3 means any natural or artificial substances, whether in a solid, semi-solid or liquid form, or in the form of gas or vapour, or in a mixture of at least two of these substances, or any objectionable odour or noise or heat emitted, discharged or deposited or is likely to be emitted, discharged or deposited from any source which can directly or indirectly cause pollution and includes any environmentally hazardous substances."Schedule

wastes" **means any**

3 waste prescribed by the Minister in the regulations as scheduled wastes.

"Waste" means

3 any matter prescribed to be scheduled waste, or any matter whether in a solid, semi-solid or liquid form, or in the form of gas or vapour which is emitted, discharged or

66 Section 3 of 1974 EQA. 67 Article 3 of 1982 LOSC, The breadth of the territorial sea is up to a limit not exceeding 12 nautical miles from baselines. deposited in

3 the environment in such volume, composition or manner as to cause pollution.

Mariani opined that the 1974 EQA is silent as to definition of "hazardous waste" or "toxic waste" but does define "schedule wastes" as any waste prescribed by the Minister. 68 The definition has been clarified by the issuance of the Environmental Quality (Scheduled wastes) Regulations in 1989. 69 The First Schedule of the Regulations defines 107 categories of toxic and hazardous wastes, covering all but radioactive wastes, which are controlled by the Atomic Energy Licensing Act 1984. Besides that, scheduled wastes are "environmentally hazardous substance" despite not being mentioned in section 2 of the 1974 EQA when defining the phrase. 70 The 1974 EQA classifies wastes into five categories according to physical nature of a particular waste, namely: scheduled waste (usually considered as solid, but need special treatment due to their hazardous nature, and the term refers to 107 types of wastes, listed in the First Schedule to the Environmental Quality [Schedule Wastes] Regulations, 1989. 71 The Schedule classifies scheduled wastes into two: scheduled wastes from non-specific sources and scheduled wastes from specific sources), solid waste, semi solid waste, liquid waste, and gaseous waste. 72 The specific provision pertaining to shipment of HNS in the Straits of Malacca is referred to in Part IV of the 1974 EQA- Prohibition and Control of Pollution. Section 29 states that

3 no person shall unless licensed 73 discharge environmentally hazardous substances, pollutants or wastes into Malaysian waters 74 , contravention of the

provision

3 shall be liable to a fine not exceeding five hundred thousand ringgit or

68 Ariffin, Mariani, "Hazardous Wastes and Illegal Dumping in Malaysia: An Overview" [2007] 3MLJ cix; [2007] 3 MLJA 160. 69 Ibid. 70 Ibid. 71 Ibid. 72 Ibid. 73 Licences are provided in Part III of Environmental Quality Act 1974, the Director General shall be the licensing authority. Contravention to comply the terms of licence shall be liable to fine of RM 25000 or to imprisonment not exceeding 2

3 years or to both and to further fine of RM1000 for everyday the offence is

continued after notice given by **Director General**.

74 “Malaysian waters”

3 means the territorial waters of Malaysia as determined in accordance with the Emergency (Essential Powers) Ordinance, No.7 1969.

3 to imprisonment not exceeding five years or to both. Based on **section**

29, the 1974 EQA, the area that covered the discharged of environmentally hazardous substances is limited to 12 nautical miles from Malaysia's baselines. In other words, this provision is not sufficient, but limited and does not cover the discharge of environmentally hazardous substances in other maritime zones, the Exclusive Economic Zone and the Continental Shelf of Malaysia. 75 As further stated by Abdul Ghafur Hamid, the EQA 1974 has two provisions which are directly related to marine pollution and can be said as far short of the effective regulation of the modern threats of marine pollution. 76 According to Amelia, the complete prohibition of the discharge of oil, mixture containing oil, environmentally hazardous substances, pollutants or wastes by Sections 27 and 29 of the 1974 EQA is inconsistent with the provisions of paragraph 1 (b) of Article 42 of the 1982 LOSC, which applies the discharge standards of Annexes 1 and 11 of Article 42 of the 1982 LOSC. 77 There is an important provision on HNS shipment under the 1989 Basel Convention which is implemented in Section 34B of the 1974 EQA, this provision prohibits the following activities without prior written approval of the Director General of Environment 78 : a) Any placement, deposit or disposal of any scheduled wastes on land or into Malaysian waters except at prescribed premises; b) Receive or send

3 scheduled wastes in and out of Malaysia, and c) Transit

of scheduled wastes. 75 Abdul Ghafur Hamid, “ Malaysia’s Commitments Under International Conventions And The Need For A Harmonized Legal Regime Regulating Marine Pollution” (2007) Volume 6 The Malayan Law Journal Articles 124-144. 76 Ibid. 77 Amelia Emran, The regulation of vessel-source pollution in the Straits of Malacca and Singapore, (Thesis Master of Maritime Studies (Research)), University of Wollongong, Wollongong, 2007 at 132. 78 “Scheduled Waste Management: Issues and Challenges”, Quarterly DOE Update on Environment, Development & Sustainability, Issue 2/2006, <http://www.doe.my>. A control mechanism based on prior written notification and consent was also put into place in line with the provisions of the Convention. 79 However the transboundary movement of hazardous wastes is regulated under the 1967 of Customs Act, specifically the Customs (Prohibition of Import) Order 1993 and 1998 and the Customs (Prohibition of Export) Order 1993 and 1998. 80 The export and import of wastes as listed in the Orders have to be accompanied by a letter of approval issued by the Director General of Environment. 81 Hence the Royal Customs Department of Malaysia plays a very important role in preventing the illegal trafficking of hazardous waste through prohibition of imports and exports of waste governed by the above national legislations. 82 The movement of wastes is monitored using the consignment notes. Section 34 B of the 1984 EQA provides the maximum penalty of RM 500,000 or imprisonment for a period of five years or both for any violations of this section. 83 The government of Malaysia has promoted the establishment of environmentally sound treatment, recovery and disposal facilities. 84 By having such facilities, industries in Malaysia are able to dispose waste in an orderly, regulated manner to avoid costly movements to other countries, and even more importantly, to avoid unnecessary risk to public health and the environment during its transport. 85 To date two such facilities have been licensed for treatment and disposal of scheduled wastes, one in Negeri Sembilan and one in Sarawak. 86 The

3 Director General may require the owner or occupier of any vehicle, ship, premises or aircraft to furnish information relating to

any environmentally hazardous substances, pollutants or wastes discharged or likely to be discharged or 79 Ibid. 80 Ibid. 81 Ibid. 82 Ibid. 83 Ibid. 84 Ibid. 85 "Scheduled Waste Management: Issues and Challenges", Quarterly DOE Update on Environment, Development & Sustainability, Issue 2/2006, <http://www.doe.my>. 86 Ibid.

3 any environmental risk that is likely to result from the use of the raw materials, environmentally hazardous substances or process.

87 The failure of the owner or occupier to furnish information creates an offence and liability

3 to a fine not exceeding two thousand ringgit or to imprisonment not exceeding six months or both. Where **the Director General**

3 has reason to believe that any person has committed an offence under

the 1974 EQA, may

3 without a warrant, stop, board and search any vehicle, ship or aircraft.

88 The Director General may

3 inspect, examine, seize or detain any schedule wastes, or environmentally hazardous substances and any vehicle or ship used in the conveyance of the scheduled wastes or environmentally hazardous substances.

89 An amendment of the 1974 EQA in 1985 inserted section 34 A on report on impact on environment (EIA) resulting from prescribed activities. Any person

3 intending to carry out the prescribed activities 90 shall

submit a report to the Director General of Environment which

3 contain an assessment of the impact such activity will have

on the environment and the proposed measures in order to prevent, reduce or control the adverse impact on the environment. Contravention to EIA shall be liable to a fine not exceeding RM 100000 or to imprisonment for a period not exceeding 5 years or to both and to further fine of RM 1000

3 for every day that the offence is continued after notice is required **by the**

Director General.

However, the provisions from the EQA 1974 regarding pollution from vessel is not applicable in the Straits of Malacca because the limit of territorial sea 87 Section 37 of 1974 EQA. 88 Section 38 of 1974 EQA. 89 Section 38 of 1984 EQA. 90 There are 19 categories of prescribed activities as specified in Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987 including Waste Treatment and Disposal of (a) Toxic and Hazardous Waste (b) Municipal Solid Waste (c) Municipal Sewage and others. The 1974 EQA. does not cover the Straits of Malacca. In order to find a solution to this matter, the domestic laws should reflect the law on transit passage in the Straits of Malacca. The provisions of the 1974 EQA that refer to the territorial waters of Malaysia have the same problems associated with that definition in the 1969 Ordinance. For the region of the Straits of Malacca to be effectively covered, the regime of straits used for international navigation as spelt out in Part III, 1982 LOSC must be reflected in Malaysia's domestic laws. Strait States cannot generally exercise civil or criminal jurisdiction on board ships which are in violation of HNS regulations unless the ship is in a Malaysian port. The defences available in the EQA, should they be applicable for HNS pollution. There are five special defences to a violation of section 27. 91 None of these defences relate to HNS marine pollution. 5.2.6 The 1984 Exclusive Economic Zone Act Number 311 (the 1984 EEZ) As Malaysia's

1 exclusive economic zone (EEZ) in the northern end of the

Straits of Malacca is contiguous with her territorial sea, marine pollution from HNS shipments in the EEZ have some implications for the territorial sea. The Exclusive Economic Zone Act of 1984 (the 1984 EEZ) provides for the exclusive economic zone and certain aspects of the continental shelf of Malaysia. It also regulates activities in the zone and on continental shelf and for matters connected therewith. The 1984 EEZ Act covers marine pollution in Malaysian waters in the Straits of Malacca. In Part II of the 1984 EEZ, the EEZ of Malaysia

1 is an area beyond and adjacent to the territorial sea of Malaysia and

1 extends to a distance of two hundred nautical miles from the baselines from which the breadth of the territorial sea is

91 Sy Ahmad, Sharifah Suhanah, ed. *Developments in Malaysian Law Selected Essays*, (Kuala Lumpur: Fakulti Undang-Undang, 2007) at 123. measured. 92

1 Where there is an agreement in force on the matter between Malaysia and a State with an opposite or adjacent coast,

questions relating to the delimitation of the exclusive economic zone shall be determined in accordance with the provisions of that agreement. 93 In this Act, "authorized officer" 94 means any fishery officer as defined in section 2 of the 1963 Fisheries Act, any port officer as defined in section 2 of the 1952 Merchant Shipping Ordinance, any police officer not below the rank of sergeant as defined in section 2 of the 1967 Police Act, any customs officer as defined in section 2 of the 1967 Customs Act, any officer of the armed forces as defined in section 2 of the 1972 Armed Forces Act 1972, any public officer, irrespective of rank, in command of a vessel belonging to the Government or any other person or class of persons appointed to be an authorised officer or an authorised officer under section 39; "Director General" 95

3 means the Director-General of Environmental Quality as defined in section

2 of the 1974 Environmental Quality Act; "dumping" 96 means: a) any deliberate disposal of wastes or other matter from vessels, aircraft or other man-made structures at sea; or b) any deliberate disposal of vessels, aircraft or other man-made structures at sea, but "dumping" does not include :i) the disposal of wastes or other matter incidental to or derived from, the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structure at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures; or ii) placement of matter for a purpose other than 92 Section 3 (1) of 1984 Exclusive Economic Zone. 93 Section 3 (2) of 1984 Exclusive Economic Zone. 94 Section 2 of 1984 Exclusive Economic Zone. 95 Section 2 of 1984 Exclusive Economic Zone 96 Ibid. the mere disposal thereof, provided that such placement is not contrary to the aims of this Act, any applicable written law or international law; "Malaysian fisheries waters" 97 means all waters comprising the internal waters, the territorial sea and the exclusive economic zone of Malaysia in which Malaysia exercises sovereign and exclusive rights over fisheries; "exclusive economic zone" 98

1 means the exclusive economic zone of Malaysia determined in accordance with section 3;

"maritime casualty" 99 means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo; "owner" 100 in relation to a vessel, means any person or body of persons, whether incorporated or not, by whom the vessel is owned and includes any charterer, sub-charterer, lessee or sub-lessee of the vessel; "pollutant" 101 means any substance which, if introduced into the sea, is liable to create hazards to human health or to harm living resources in the sea or other marine life, or to damage amenities or interfere with other legitimate uses of the sea and, without limiting the generality of the foregoing, includes any substance that is prescribed by the Minister charged with responsibility for the environment by order in the Gazette to be a pollutant for the purposes of this Act; "territorial sea" 102

1 means the territorial waters of Malaysia determined in accordance with the Emergency (Essential Powers) Ordinance, No.7/1969;

"vessel" 103

3 includes every description of ship or floating or submarine craft or structure;"waste" includes:

a) any matter, whether liquid, solid, gaseous or radioactive, which is discharged, emitted, deposited or dumped in the marine environment in such volume, composition or manner as to cause an alteration of the environment; or b) any matter 97 Ibid. 98 Ibid. 99 Ibid. 100 Ibid. 101 Ibid. 102 Ibid. 103 Ibid. which is prescribed by the Minister charged with responsibility for the environment by order in the Gazette to be waste for the purposes of this Act. If any oil, mixture containing oil or pollutant is discharged by any vessel or such pollutant escapes into the exclusive economic zone, shall be guilty and liable to a fine not exceeding RM1 million under section 10. 104 A defence to a charge under Section 10 is provided if the wrongdoer could prove that the discharge or escape of the substance was caused for the purpose of securing the safety vessel or the purpose of saving life, but the defence shall not operate if the court is satisfied that the

discharge or escape was not necessary for the alleged purpose or no reasonable step was taken to prevent it. 105 This Act also requires that persons such as the owner of the vessel to report on any occurrence of such discharge or escape to the Director- General and on failure to do so shall be guilty and liable to a fine not exceeding RM 10,000. 106 The government of Malaysia may specify measures to protect Malaysia's coastline or element of environment, including fishing from pollution or threat to pollution following upon a maritime casualty which may result in major harm. 107 Sections 14 and 15 of the 1984 EEZ Act provide directions and action to remove, disperse, destroy or mitigate damage and power to detain and sell vessels. Part IX of the 1984 EEZ Act stipulates offences, penalties, legal proceedings and compensations. The general penalty for any person who is found guilty of an offence under this Act for which no punishment provided shall be liable to a fine not exceeding RM1 million. 108 There are other provisions under Part IX of the 1984 104 Section 10 of 1984 Exclusive Economic Zone. 105 Section 11 of 1984 Exclusive Economic Zone. 106 Section 12 of 1984 Exclusive Economic Zone. 107 Section 13 of 1984 Exclusive Economic Zone. 108 Section 29 of 1984 Exclusive Economic Zone. EEZ stated on offences by company, partnership 109 , master liable for offence committed on his vessel 110 , on detention and forfeiture of vessel 111 , on power of court to order forfeiture 112 , power of court to order forfeiture in certain circumstances 113 , on Sessions Court and Magistrate of First Class which have full jurisdiction and powers under Act or applicable written law 114 , on presumptions as to maps 115 , prosecution of offence 116 , on power of the Yang Di Pertuan Agong to may appoint other persons to be authorised officers 117 and for damage caused to any person or property or to the environment in exclusive economic zone or on continental shelf. 118 Although the 1984 EEZ Act covers the maritime zones of the exclusive economic zone and the continental shelf in the same Act because it exists an overlapping maritime zones. It is proposed that the 1982 LOSC to include the continental shelf's sovereign rights of the strait state in the Straits of Malacca. Does the 1984 EEZ Act adequately protect HNS marine pollution in the Malaysian EEZ? It is argued that the 1984 EEZ Act does not refer to the term HNS but the nearest definition would be the pollutant. Section 10 of the 1984 refers to dumping of pollutants from vessels but does not include incidentals of HNS pollution. In other words, the 1984 EEZ does not adequately protect Malaysian marine waters from HNS pollution. 5.2.7 The 2009 Continental Shelf (Amendment) Act 2009 Malaysia ratified the 1982 LOSC on 14 October 1996 and in fulfilling some of the obligations under the 1982 LOSC, the 2009 Continental Shelf (Amendment) Act is used. 109 Section 30 of 1984 Exclusive Economic Zone. 110 Section 31 of 1984 Exclusive Economic Zone. 111 Section 32 of 1984 Exclusive Economic Zone. 112 Section 33 of 1984 Exclusive Economic Zone. 113 Section 35 of 1984 Exclusive Economic Zone. 114 Section 36 of 1984 Exclusive Economic Zone. 115 Section 37 of 1984 Exclusive Economic Zone. 116 Section 38of 1984 Exclusive Economic Zone. 117 Section 39 of 1984 Exclusive Economic Zone. 118 Section 40 of 1984 Exclusive Economic Zone. The new definition of continental shelf is in line with Article 76 of the 1982 LOSC. With the new definition, Malaysia has sovereign rights to the outer edge of the continental margin, which comprises the sea-bed and subsoil of the shelf, slope and rise provided that it extends as the natural prolongation of the land territory or to a distance of 200 nautical miles from the baselines, from which the breadth of the territorial sea is measured, if the continental margin does not extend to that distance. 119 The new section 2 (a) provides for the limits of continental shelf which will be altered in accordance with the agreement in force on the matter between Malaysia and other countries. 120 Clause 4 seeks to amend section 3 to provide that if Malaysia does not undertake to exercise the rights with respect to the exploration of the continental shelf or the exploitation of its natural resources, no one or no country may exercise such rights except with express consent of Malaysia. 121 There is no regulation on HNS pollution in the Continental Shelf Act 1966 or its 2009 (Amendment). 5.2.8 The 2004 Pesticides (Amendment) Act Malaysia became a party to the Rotterdam Convention on 4 September 2002. 122 In fulfilling national obligations under the Rotterdam Convention, the Malaysia's Pesticides Act 1974 is used. 123 The 1974 Pesticides Act is designed in order to ensure the registration of pesticides before these are marketed in Malaysia. 124 The active substances in the pesticides have to be evaluated according to an 119 <http://74.6.117.48/search/> 22 September 2010, 1.45 pm. 120 Ibid. 121 <http://74.6.117.48/search/> 22 September 2010, 1.45 pm. 122 <http://www.fao.org/docrep> , 25 August 2010, 10 pm. 123 Ibid. 124 Overview of the POPs Pesticide Situation in Malaysia, 2006. <http://74.6.116.140/search> , 20 September 2010, 3.00 pm. 262 environmental assessment, health assessment and efficacy specifications. 125 A pesticide registration has to be renewed every three years and new scientific knowledge and/or strengthened criteria can result in a refusal, ie deregistration. 126 In

other words, this acts as a regulatory action to ban or to severely restrict the use of pesticide under the registration scheme and to prevent the import and export and export of pesticides subject to the Rotterdam Convention (Annex III pesticides). 127 Out of the 28 pesticides listed in the Annex III of the Rotterdam Convention, only two pesticides are currently registered and still in use in Malaysia ie monocrotophos and methamidophos. 128 These two (2) pesticides are currently registered for bagworm control in oil palms by mean of trunk injection and they are categorised as highly toxic pesticides which are subject to the Pesticides (Highly Toxic Pesticides Regulations) 1996. 129 The authority responsible for the implementation and enforcement of the 1974 Pesticides Act is the Pesticides Board, which comprises 14 members from related government agencies. 130 The secretariat for the Pesticides Board is the Pesticides Control Division, Department of Agriculture. 131 The 1974 Pesticides Board is responsible for the implementation and enforcement of various rules and regulations under the 1974 Pesticides Act, including those related to the registration of pesticides. 132 Only those pesticides that are registered with the board may be imported, manufactured, used, distributed and sold in country. 133 125 Ibid. 126 Ibid. 127 <http://www.fao.org/docrep/011> , 25 August 2010, 3 pm. 128 Ibid. 129 Ibid. 130 Ibid. 131 Ibid. 132 <http://www.fao.org/docrep/011> , 25 August 2010, 3 pm. 133 Ibid. The administration and coordination of import responses and export notifications under the Rotterdam Convention for industrial chemicals are the responsibility of the Department of Environment as Designated National Authorities (DNA) for industrial chemicals. 134 The number of export notifications received by the Department of Environment from the year 2004 to 2007 is shown in Table 5.1. Table 5.1 Malaysia: Number of Export Notifications Received for Industrial Chemicals 2004-2007

YEAR	NUMBER OF EXPORT NOTIFICATIONS RECEIVED
2004	23
2005	11
2006	26
2007	25

Source: Import responses (Articles 10 and 11) Malaysia has fulfilled its obligation in providing the status of 28 pesticides in the Annex III of the Rotterdam Convention under import response requirement. Out of the total, only two (2) pesticides (monocrotophos and methamidophos) are permitted to be manufactured and imported into Malaysia under the Rotterdam Convention provided they are registered under the 1974 Pesticides Act. 136 Malaysia has also provided not permitting the import of 26 other pesticides in the Annex III of the Convention as they are no longer registered for use in the country. 137 Malaysia has also taken the action not to allow those pesticides to be manufactured in the country even solely for export purposes. Before import response forms are sent to the Rotterdam Convention Secretariat, related 134 Ibid. 135 Ibid. 136 <http://www.fao.org/docrep/011> , 25 August 2010, 3 pm. 137 Ibid. government agencies will be consulted. For pesticides, the Pesticides Technical Committee will be consulted. 138 PIC (Information exchange provision) circular published every 6 months serves as one of the sources of reference by the DNA for pesticides on the status of pesticides in other countries. 139 However, the use of such information for similar regulatory action is rather limited at the moment due to lack of detailed information. 140 Malaysia has been receiving export notifications from the European Union requesting for consent to export pesticides that are banned or restricted in the EU to Malaysia. 141 The export notifications come in the form of letters or emails. In replying, the DNA for pesticides gave the necessary information to the DNA of the exporting country whether to consent or not consent to the export. 142 The information given to DNA of the importing country includes the registration status in Malaysia, the registrant and the registration validity period. Malaysia has also been rejecting the import of some Annex III pesticides because the exportation was contrary to the import response of Malaysia. 143 Malaysia is very supportive of the Rotterdam Convention even well before it comes into force. 144 In fulfilling its obligations as a party to this Convention, Malaysia has nominated two (2) Designated National Authority, one for pesticides (Pesticides Board of Malaysia) and one for industrial chemical (Department of 138 Ibid. 139 Ibid. 140 Ibid. 141 Ibid. 142 Ibid. 143 Ibid. 144 Ibid. Environment, Malaysia). 145 Malaysia has provided the Rotterdam Convention Secretariat the status of 44 pesticides/ industrial chemicals in Malaysia as listed in Annex III of the Convention and has taken steps to notify the Rotterdam Convention Secretariat on the regulatory actions taken on pesticides / industrial chemicals based on health and environmental reasons. 146 Malaysia has benefited tremendously from being a party to this Convention, particularly in the information exchange mechanisms and participates in giving additional information and comments to the secretariat on issues related to the implementation of the convention as well as in ensuring that all activities related to pesticides/ industrial chemicals are consistent with the requirements of the Convention. 147 5.2.9 The 1967 Customs Act Malaysian legal provisions on importation and exportation are stipulated in the 1967 Malaysian Customs Act and the 1977 Customs Regulations. 148 The main concept of legal provisions is to apply customs control procedures in importation

and exportation. 149 5.2.10 The 2004 Malaysian Maritime Enforcement Agency Act The

1 Safety of Life at Sea Convention 1974 (SOLAS)

1 incorporated the ISPS Code directly into SOLAS via a new Chapter X1 -2.
SOLAS to regulates **the**

1 safety of mariners at sea, but has now been extended to port facilities as well through the ISPS in the schedule. 150 There are two parts to the ISPS Code. 151 Part A is mandatory and contains security related requirements for shipping companies, port

145 Ibid. 146 Ibid. 147 Ibid. 148 <http://www.malaysiaexports.com/malaysia> 1 April 2010, 2.00 pm. 149 Ibid. 150 Ooi, Irwin, "The Malaysian Maritime Enforcement Agency Act 2004: Malaysia's Legal Response to the Threat of Maritime Terrorism" (2007) 21 A&NZ Mar LJ. 151 Ibid.

1 authorities and governments, whether as flag States, as operators of port facilities or as regulatory authorities of privately owned port facilities. 152 Part B consists of non- mandatory guidelines as to how the mandatory requirements could be met. 153 For example, evidence of a ship's compliance with the ISPS Code is a valid"International Ship Security Certificate"**issued by the administration of the flag State and a "Ship Security Officer" on board the ship who is assisted by a "Company Security Officer" at each shipping company. 154 The ISPS Code only deals with two aspects of maritime security, ie security of ships and ports. 155 The security of the waters around the ports and the navigation routes used by ships are not covered.**

156

1 This prompted calls for the formation of coast guard agencies by coastal States that do not have the equivalent of such an enforcement agency,

for example the

1 well established coast guard units of the United States.

157 The 2004 Malaysian Maritime Enforcement Act 2004 (the 2004 MMEA) is

1 Malaysia's statutory response to the threat of maritime terrorism. 158 It

contains legal provisions for the setting up of a Malaysian "coast guard" known as the Malaysian Maritime Enforcement. 159 The preamble describes the 2004 MMEA as: 160 An Act to establish the Malaysian Maritime Enforcement Agency to perform enforcement functions for ensuring the safety and security of the Malaysian

152 Ibid. 153 Ibid. 154 Ibid. 155 Ibid. 156 Ibid. 157 Ibid. 158 Ibid. 159 Ooi, Irwin, "The Malaysian Maritime Enforcement Agency Act 2004: Malaysia's Legal Response to the Threat of Maritime Terrorism" (2007) 21 A&NZ Mar LJ.. 160 Ibid.

1 Maritime Zone with a view to the protection of maritime and other national interests in such zone and for matters necessary thereto or connected therewith.

161

1 There was international concern that in the Strait of Malacca, there could be a process of graduation from simple piracy to full blown terrorism.

162 The 2004 MMEA

1 is the nation's long overdue response to calls for a security crackdown in the region and the move was welcomed by the international–community, as slow moving merchant vessels are particularly vulnerable to attack. 163 Perhaps an even bigger motivation for the

1 setting up the 2004 MMEA, Malaysia is politically in a stronger position to argue its case that everything possible is being done to beef up maritime security in the region. 164 The United States will no longer be able to use the lack of security as an excuse to strategically place its troops along the Straits of Malacca. Recently, the United States acknowledged that Malaysia is doing its utmost to ensure maritime security, particularly in the Straits of Malacca and expressed that it respected Malaysian sovereignty with regard to the busy waterway.

165 Section 3(2) states that the Agency is employed in the Malaysian Maritime Zone for the maintenance of law and order, the preservation of peace, safety and security, the prevention and detection of crime, the apprehension and prosecution of offenders and the collection of security intelligence. 166 The functions of the 2004 MMEA are enumerated below: 167 a) To enforce law and order under any federal law. 161 Ibid. 162 Ibid. 163 Ibid. 164 Ooi, Irwin, "The Malaysian Maritime Enforcement Agency Act 2004: Malaysia's Legal Response to the Threat of Maritime Terrorism" (2007) 21 A&NZ Mar LJ.. 165 Ibid. 166 George, Mary "A Continuum of Ocean law and Policy challenges for Malaysia in the new millennium" in Sy. Ahmad, Sharifah Suhanah, ed., *Developments in Malaysian Law Selected Essays*, (Kuala Lumpur: Universiti Malaya, 2007)

at 122. 167 Ibid. b) To perform maritime research and rescue. c) To prevent and suppress the commission of an offence. d) To lend assistance in any criminal matter on a request by a foreign state as provided under the Mutual Assistance in Criminal Matters Act 2002. e) To carry out air and coastal surveillance. f) To establish and manage maritime institutions for the training of officers of the Agency. g) To perform any duty for ensuring maritime safety and security or other matters incidental thereto. h) To perform maritime search and rescue on the high seas. i) To control and prevent maritime pollution. j) To prevent and suppress piracy on the high seas. k) To prevent and suppress illicit traffic in narcotic drugs. According to Ooi,

1 a myriad of domestic legislation empowering numerous Malaysian government agencies still exist and govern the enforcement of laws in those maritime zones. 168 The 2004 MMEAA, merely adds another layer of bureaucracy and empowers a new agency, the MMEAA, to enforce domestic laws in Malaysia's maritime zones. 169 In the event of a conflict of jurisdiction between enforcement agencies, it is apparent that there is now no clear statutory guideline as to where the powers of the

2004 MMEAA commence. 170 The 2004 MMEAA

1 alone cannot provide a complete legislative solution to maritime terrorism.

171 However, it is also important for the MMEAA to have power to control and prevent maritime pollution in territorial sea and straits used for international navigation. 168 Ooi, Irwin, "The Malaysian Maritime Enforcement Agency Act 2004: Malaysia's Legal Response to the Threat of Maritime Terrorism" (2007) 21 A&NZ Mar LJ.. 169 Ibid. 170 Ibid. 171 Ibid. 5.2.11 Laws and regulations governing dangerous cargoes Port Klang This part covers the law and regulations governing dangerous cargoes at Port Klang. For the purpose of this research, Port Klang 172 is examined in detail because it serves as one of the major ports in Malaysia located within the Straits of Malacca, it serves as the principal gateway to or from what and is the busiest port in Malaysia. 173 Port Klang is situated on the west coast of Peninsular Malaysia, about 40 kilometers from the capital city, Kuala Lumpur. 174 Its proximity to the greater Klang Valley- the commercial and industrial hub of the country as well as the country's most populous region ensures that the port plays a pivotal role in the economic development of the country. 175 Port Klang is served by three (3) major gateways called North Port, South Port and West Port. 176 There are eighteen (18) berths in North Port, eight (8) in South Port and twenty two (22) in West Port. Port Klang is governed by: i) the General Directions, rules and regulation pertaining to safety of navigation in Port Authorities Act 1963, ii) the Merchant Shipping Ordinance 1952 and Regulations, iii) Port Klang Authority By-Laws 1989, iv) International Regulations for Prevention of Collisions At Sea 1972 and 172 The mission of Port Klang as Malaysia's premier port: i) provide the highest standards of cargo safety and security while ensuring a navigationally safe haven for ships, ii) strive for cost-effective service through port performance of international standard, iii) develop a highly-trained, motivated workforce to meet the growing demands of the port authority, iv) create a conducive commercial environment to provide traders a competitive edge in the world market, v) develop supply-driven port facilities and services to undertake a larger regional role. <http://www.pka.gov.my> 16 June 2009, 11.45 am. 173 Port Klang Malaysia, Marine Information Handbook, revised 1 July 2008. 174 <http://www.pka.gov.my> 16 June 2009, 11.45 am. 175 Ibid. 176 Port Klang Malaysia, Marine Information Handbook, revised 1 July 2008. v) International Association of Lighthouse Authorities (IALA) Buoyage System. 177 The related rules and regulations on dangerous goods at Port Klang consist of: i) the Klang Port Authority's (Amendment) By-Laws 1989 (the 1989 KPA), ii) Dangerous Goods - User Guide by Port Klang, iii) Port Klang, Marine Information Handbook (revised 1 st July 2008). Port Klang is declared a Compulsory Pilotage District. 178 All vessels entering, leaving or navigating within the limits are required to

engage a licensed pilot. 179 However, Government vessels, fishing vessels, harbor service crafts and vessels below 28 meters Length over All (LOA) are exempted from compulsory pilotage. 180 Port Klang also operates a Vessel Traffic Management System. The system is linked to the Malacca Straits Surveillance System and is supported by a network of radars, Automatic Identification System and communication facilities. 181 A Mandatory Ship Reporting is required for all vessels entering, leaving and navigating within the Pilotage District of Port Klang. 182 The aim of the reporting system is to ensure that the movement of traffic is monitored so as to enhance navigational safety within the waterway. 183 5.2.11.1 The Klang Port Authority (Amendment) By Laws 1989 (KPA 1989) The By-laws consist of safe handling, storage and transportation of dangerous goods and the Dangerous Goods-User Guide consists of procedures on the handling of dangerous goods including classification, documentation, marking, labelling and packaging. The Port Klang Malaysia, Marine Information Handbook covers the general layout plan of Port Klang including pilotage, 177 Ibid. 178 Ibid.. 179 Ibid. 180 Ibid. 181 Ibid. 182 Ibid. 183 Ibid. arrival and departure procedures, Vessel Traffic Management System, Mandatory Ship Reporting System and others. 5.2.11.2 Dangerous Goods as stated at Port Klang Authority It is necessary to examine whether the existing law is adequate for Malaysia to cater for the problems related to dangerous goods in Port Klang. It is necessary to examine the provisions in The Klang Port Authority (Amendment) By Laws 1989 (1989 KPA) because the Klang Port Authority incorporates the International Maritime Dangerous Goods Code 184 in the port regulations. The important terms extracted from the 1989 KPA are "berth" which means any berth, dock, pier, jetty, quay or wharf within the port, "berth operator" which means the Authority or the operator of the berth on a day-today basis or the installation owner when acting as appropriate, "bulk dangerous goods" that means any dangerous goods carried without any intermediate form of containment in a tank or cargo space which is a structural part of a vessel or in a tank permanently fixed in or on a vessel, "certificate of fitness" that means a certificate issued by or on behalf of a certifying authority certifying that the construction and equipment of a ship complies with the necessary requirements for that type of ship and that certain specific dangerous goods may be carried in it, "dangerous goods anchorage" that means the explosive anchorage, or the petroleum anchorage, or any other anchorage designated by the Authority and approved by the Harbour Master, "L.P.K group" that means the group assigned by the Authority to any dangerous goods specified in the First Schedule or to any other dangerous goods "freight container" that means a container that is durable in nature specially designed to facilitate the transport of goods by one or more modes of transport without intermediate re-loading and having corner fittings for purposes of securing and easy handling, "relevant dangerous goods " that means a) more than 10 kg. net explosive content of goods of Class 1.1 or 250 kg in the aggregate of goods of Classes 1.2, 1.3 and 1.5. When goods of Class 1.1 are carried simultaneously in the ship with goods of Classes 1.2, 1.3 and 1.5, the overall limit of net explosive content is 10 kg; b) more than 50 tonnes of goods of Class 5.1, UN packaging Group 1 and more than 300 tonnes of other Class 5.1 goods; c) bulk liquids of Class 3 with a flash point not exceeding 60 C; d) more than 1 tonne Class 5.2 goods with a subsidiary explosive label carried in break bulk and more than 5 tonnes there of if containerized; more than 10 tonnes of Class 5.2 goods without subsidiary explosive label carried in breakbulk and more than 80 tonnes thereof if containerized; e) bulk liquefied gases of Class 2; f) dangerous goods of Classes 4, 6.1, 8 and 9 carried in bulk; and g) any Class 7 goods, if the sum of transport indices exceeds 50: Provided that in the case of liquefied gases of Class 2 and flammable liquids of Class 3, referred to in paragraphs (c) and (e) respectively, a vessel shall be deemed to be carrying "relevant dangerous goods" if it has carried such a liquid in bulk and has not been gas freed or inerted after the discharge of the liquids. "UN packaging group" that means any of those groups (established by the

2 United Nations Committee of Experts on the Transport of Dangerous Goods)

into which the various dangerous goods have been grouped and which represent three different levels of danger: UN packaging group 1 (great danger), UN packaging group II (medium danger), and UN packaging group III (minor danger). All dangerous goods on board shall be classified, numbered and grouped before entering the port area as specified in the First Schedule. 185 The Authority may impose any conditions

necessary to ensure safety during the passage of a vessel carrying any dangerous goods into the port. 186 There are several situations in handling the dangerous goods at berth. A vessel carrying the dangerous goods under L.P.K group one shall be handled at the dangerous goods anchorage and shall not come alongside the Authority's berth. 187 A vessel carrying dangerous goods which fall under L.P.K group one or any relevant dangerous goods shall not come alongside a berth when adjacent berth is occupied by another vessel also having on board dangerous goods. 188 Vessels carrying liquid bulk dangerous goods shall not be allowed to enter the port or permitted to load or discharge any liquid bulk dangerous goods unless the master of the vessel is in possession of a valid certificate of fitness. 189 Liquid bulk dangerous goods shall not be transferred from vessel to vessel unless an application to do so has been made to the Authority. 190 The master of vessel and the berth operator shall have available information concerning the solid bulk dangerous goods handled, stored and transported in the port (for example the correct technical name, the UN number, cargo number, special equipment needed for safe handling of the goods and procedures to be taken when emergency arises). 191 Under section 3 (1), no vessel shall be allotted a berth except upon a written application made by the master, owner or agent or shipper or his agent, as the 185 Section 122 Klang Port Authority (Amendment) By- Laws 1989. 186 Section 124 (1) Klang Port Authority (Amendment) By- Laws 1989. 187 Section 126 (1) Klang Port Authority (Amendment) By- Laws 1989. 188 Section 126(3) Klang Port Authority (Amendment) By- Laws 1989. 189 Section 132L.(1) Klang Port Authority (Amendment) By- Laws 1989. 190 Section 132AC. Klang Port Authority (Amendment) By- Laws 1989. 191 Section 132 AD. Klang Port Authority (Amendment) By- Laws 1989. case may be, to the Traffic Manager in the prescribed form in the Third Schedule not less than 24 hours and in the case of dangerous goods (whether specified in the First Schedule or otherwise) not less than 48 hours before the expected arrival of the vessel. (2) Full particulars shall be furnished in writing therein regarding (where and if applicable)- (f) in respect of dangerous goods (whether specified in the First Schedule or otherwise) whether cargo is for loading, discharge or transit, conditions of cargo tanks, certificate of fitness, physical and chemical data of the goods, any other relevant information on the dangerous goods and others. 5.2.11.3 Dangerous Goods – User Guide by Port Klang All dangerous goods brought into Port Klang must be packed, labeled and marked as per KPA's By-Laws which adopt the recommendations of the International Maritime Dangerous Goods Code. These are the regulations and classification of Dangerous Goods in Port Klang. There are three main groups classified by Klang Port Authority (KPA) for the purpose in handling dangerous goods; group 1, group II and group III. Group I comprises explosive goods. These dangerous goods can only be landed at places and under conditions the Authority may impose. Ships carrying dangerous goods which are explosive in nature, unless otherwise agreed by KPA, are prohibited from coming alongside the berths. Group II comprises mainly of peroxides, radioactives, flammable liquids of low flash points and gases. Ships carrying dangerous goods under this group may come alongside the berths but the goods must be in direct transit and will not be accepted for storage 192 unless agreed to by KPA. Group III comprises corrosives, toxics, flammable liquid of flash points and flammable liquid of high flash points and flammable solids. Goods under this category can be stored at designated areas. The master, owner or agent or shipper or his agent should write an application to the Traffic Manager not less than 48 (forty eight) hours before arrival of the ship at Port Klang. 193 The particulars shall be furnished in writing (whether specified in the First Schedule or otherwise) (where and if applicable) 194 ; i) radioactive materials: category and transport index, ii) iii) iv) name of ship and stowage position on board, whether cargo is for loading, discharge or transit, loading and discharging ports, v) conditions of cargo tanks, vi) vii) certificate of fitness, physical and chemical data of the goods, viii) any other relevant information on the dangerous goods (for example damaged dangerous goods); and ix) water or various other appliances or any other services needed. 192 Dangerous goods which are accepted for storage are stored in special designated areas and warehouses upon recommendation of the International Maritime Organisation. The special areas and warehouses are designed for storage of Group II and Group III goods which are accepted for transshipment. 193 Section 3(1) Klang Port Authority (Amendment) By- Laws 1989. 194 Section 3 (2) Klang Port Authority (Amendment) By- Laws 1989. 5.2.11.4 The import procedures of Dangerous Goods are as follows: Shipping agents must obtain clearance from KPA's dangerous goods Unit by submitting the dangerous goods declaration form 48 hours before ship arrival. The Dangerous Goods Unit will endorse the declaration after classifying the goods to be discharged and will also indicate the mode of delivery and storage instructions. A copy of the declaration is to be submitted to Harbour Master (in order to obtain a permit to discharge the goods), berth

operator or warehouse operator and to the forwarding agent or importer in order to inform them of delivery requirement. Group 1, the dangerous goods must be discharged at North Explosive Anchorage. However, an application in writing can be made to KPA for a vessel to come alongside the berth subject to compliance with KPA's By-Laws and additional safety measures imposed by KPA. Group 11, in the case of cargo which cannot be taken and which requires temporary storage, the forwarding agent must submit an application in writing to the Dangerous Goods Unit for approval prior to the ship's arrival. A copy of the approval is to be submitted to the berth operator or warehouse operator who will then arrange for temporary storage at designated areas. Group III Dangerous goods can be stored at designated areas provided storage space is available.

5.2.11.5 Below are the export procedures of Dangerous goods in Port Klang. The Forwarding agent must obtain clearance for loading from KPA's Dangerous Goods Unit by submitting the dangerous goods declaration 48 hours before the ship's arrival. KPA's Dangerous Unit will endorse the declaration after classifying the dangerous goods and will indicate the mode of delivery and storage instructions. A copy of the declaration is to be submitted to the Harbour Master. Group 1 goods must be loaded at North Explosive Anchorage. However, an application in writing can be made to KPA for a vessel to come alongside the berth, subject to compliance with KPA for a vessel to come alongside the berth, subject to compliance with KPA By-Laws and additional safety measures imposed by KPA. Group II forwarding agent must make arrangements to have the goods loaded direct onto the ship. Where temporary storage is required, advance application must be made in writing to the KPA and a copy has to be extended to the berth operator or warehouse operator and shipping agent. Group II Full Container Load (FCL) meant for temporary storage must be stored at designated areas. Group III dangerous goods may be allowed to be stored at designated areas provided space is available. Other documents required for export of dangerous goods by containers are the container packing certificate or a vehicle declaration signed by the person responsible for packing the goods into the container, certifying that packing has been carried out.

5.3 THE SHANGHAI PORT EXPERIENCE

The Shanghai Maritime Safety Administration (MSA) issued a notice regarding the Marine Traffic Safety Management at Shanghai Port during Expo 2010. The notice applies from 1 April 2010 to 30 November 2010. 195 According to the notice, the waters around Shanghai are divided into four areas, namely the Central Control Area (CCA), Circumjacent Area (CA), Periphery Area (PA) and Pre-Control Area (PCA). 196 During the period of the Expo, port security management will be classified to three levels, where the first level is the strictest. 197 All vessels entering the CCA are required to be equipped with Automatic Identification Systems (AIS), all cargo vessels entering Shanghai inland waters are required to be equipped with continuous Very High Frequency (VHF), all vessels carrying dangerous cargo should be equipped with Global Positioning System when entering Shanghai's inland waters. Totally there are eight (8) reporting positions. 198 Vessels passing the above positions should report the vessel's name, the reporting positions it has passed destination port to the local MSA via VHF. 199 Vessels which have not submitted Vessel Information Reports to the MSA at the departure port and which have not reported at the above reporting positions are not authorized to call Shanghai or enter Huangpu Rivers and Shanghai inland rivers. 200 With regard to Special Security Inspection, all international navigation vessels which are scheduled to berth or pass by CCA should undertake special security check, in case, she has not conducted Port State Control (PSC) inspection or Flag State Control (FSC) inspection in the last two months or she has not rectified the deficiencies indicated in the most recent inspection report in respect of security on sea, main propelling machinery and auxiliary equipment, navigation safety, MARPOL Annex I and MARPOL Annex V. 201 On Carriage of Dangerous Cargo and Prevention of Pollution, when third level security management is applied, dangerous cargo carrying vessels passing CCA should comply with the following requirements: only pass between 0400hrs and 0800hrs; apply to Shanghai public security bureau for on-board escort; stay under the control and monitor of marine patrol boats when passing both CCA and CA. 202 When second level security management is applied, dangerous cargo carrying vessels are not allowed to enter CCA or CA. 203 All discharging and loading operation of dangerous cargo, and anti-pollution operation are prohibited within these areas. When first level security management is applied, dangerous cargo carrying vessels are not allowed to enter Huangpu River. 204 All discharging and loading operation of dangerous cargo and anti-pollution operation are prohibited within Huangpu River waters. 205 The researcher opines that implementing a compulsory pilotage and a mandatory ship reporting system are good mechanisms to reduce incidents of

HNS or oil pollution in Port Klang. It is proposed that the same mechanism and requirement be imposed on ships passing along the Straits of Malacca and not limited within Port Klang only. Port Klang may apply Shanghai port experience in dividing the waters around the port into four areas which vessels are required to be equipped with AIS, VHF and GPS. Such a measure will serve to enhance safety of navigation and prevent, reduce or control incidents of marine pollution from HNS. 201 Marine Traffic Safety Management at Shanghai Port during Expo 2010, http://www.ukpandi.com/ukpandi/infopool.nsf/html/LPNews_040510_1, 13 July 2010. 202 Ibid. 203 Ibid. 204 Ibid. 205 Ibid. 5.4 COMMON LAW LIABILITY-TORT As Malaysia is not a party to the 1996 HNS Convention, the claimant who suffers from HNS pollution damage might seek claim compensation under negligence. Since the 1996 HNS Convention is not enforced in Malaysia, therefore the victims of HNS pollution damage may resolve to action in tort under negligence. Duty in the tort of negligence means duty as imposed by the law, or legal duty. 206 It is only the breach of this kind of duty and its resulting damage that may give rise to liability in negligence. 207 In *Heaven v Pender* Brett MR held that a duty of care exists in normal circumstances whereby if a person does not take the usual degree of precaution another person or his property may be injured or damaged. 208 Lord Esher stated as follows 209 : Whenever one person is by circumstances placed in such position with regard to another that every one of ordinary sense who did think would at once recognise that if he did not use ordinary care and skill in his own conduct with regard to those circumstances he would cause danger or injury to the person or property of the other, a duty arises to use ordinary care and skill to avoid such danger. A duty of care may be held to exist if the following factors are fulfilled 210 : a) The damage is reasonably foreseeable, and b) There is a close and direct relationship of proximity between the plaintiff and the defendant, and 206 Talib, Norchaya, Law of Torts in Malaysia. (Malaysia: Sweet & Maxwell Asia, 2003), at 85. 207 Ibid. 208 Ibid. 209 Ibid. 210 Talib, Norchaya, loc. cit at 94. c) In addition to the two requirements above, the circumstances as a whole must be such that it is just and reasonable for the imposition of a duty of care. If applied to the incidents of shipment of HNS in the Straits of Malacca, the spillage of HNS cargoes made by the owner or master of the ship into the sea are reasonably foreseeable, causing pollution

1 to the territorial sea of Malaysia and resulting in damage to

the marine ecosystem which leads to the clean up and compensation for the spillage. However there exist obstacles on the claimant for compensation of HNS damage in tort. In some cases the absence of a strict liability regime may cause difficulty for claimants seeking to establish liability based on fault. 211 The following is an example of a case pertaining to oil pollution by an oil tanker in a river estuary. In the case of *Esso Petroleum Co Ltd v Southport Corporation*, after a steering failure, an oil tanker stranded and ran aground in a river estuary and in order to prevent the ship breaking its back, the master ordered the discharge of 400 tons of its oil cargo which the tide carried to the foreshore, causing damage, belonging to a local authority. 212 The authority incurred substantial clean-up costs and the action for damages was dismissed as no negligence had been proved, the actions of trespass and nuisance failed because of the necessity of removing danger to the lives of crews. 213 The defence operates to completely absolve the defendant from any liability whatsoever on condition that the act was not as a result of the defendant's own negligence. 214 The court decided the fact that it was necessary to discharge the oil in the interest of the safety of the crew afforded a sufficient answer to the claim based on trespass or 211 McKinley, Derek. *The 1996 International Convention on Liability and Compensation for the Carriage of Hazardous and Noxious Substances by Sea: Implications for State Parties, the Shipping, Cargo and Insurance Industries*, (Diss. LLM, University of Cape Town, South Africa, 2005) at 9. 212 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore" (1994) *Singapore Journal of Legal Studies* 52- 90. 213 Ibid. 214 Talib, Norchaya, Law of Torts in Malaysia. (Malaysia: Sweet & Maxwell Asia, 2003), at 72. nuisance. 215 The case is therefore a clear authority for the application of necessity as a defence to trespass especially where human life is at stake. 216 The discharge of oil into United Kingdom waters may, however, be an offence under section 3 of the Oil in Navigable Waters Act, 1955, but the fact that the discharge was necessary for the purpose of securing the safety of the vessel is a defence. 217 At present, there is no HNS regime, the problem in seeking for damages and compensation in HNS spillage would be the absence of statutory liability on the polluter, no direct action against insurers by the claimant and the liability limits are

too small compared with the aggregate of claim. 218 In this matter, limitation of liability limits of Malaysia is governed by the LLMC 1996 (The LLMC 1996 is explained in chapter three (3) of this thesis). Analysis indicates that liability limits under the 1957 Brussels Limitation Convention or the 1976 LLMC were too low in proportion to the volume, both in quantity and depth, of claims arising from an HNS incident.

5.5 THE LAWS OF INDONESIA ON HNS SHIPMENTS IN THE STRAITS OF MALACCA

5.5.1 The Indonesian Constitution 1945

Indonesia is the world's largest archipelagic state in terms of area, population and marine resources. 219 In total, Indonesian territory amounts to an area of 8.5 million kilometers square which is covered by sea with more than 17,000 islands with an extensive coastline of approximately 81,000 kilometers. 220 Indonesia is divided into 215 B Harvey & J Marston, *Cases & Commentary on TORT*, (London: Pitman Publishing, 1994) at 296 216 Ibid. 217 *Esso Petroleum Co Ltd and Another v Southport Corporation* [1955] 3 All ER 864. 218 McKinley, Derek. *The 1996 International Convention on Liability and Compensation for the Carriage of Hazardous and Noxious Substances by Sea: Implications for State Parties, the Shipping, Cargo and Insurance Industries*, (Diss. LLM, University of Cape Town, South Africa, 2005) at 10. 219 Suharsono, "Coastal Management in Indonesia, Recent Situation and Future Prospect", Final Symposium on Sustainable Management of the Coastal Zone of S.W Sulawesi, (25-27 March 1999). 220 Suharsono, *Coastal Management in Indonesia, Recent Situation and Future Prospect*, Final Symposium on Sustainable Management of the Coastal Zone of S.W Sulawesi, (25-27 March 1999). 24 propinsi (provinces), two (2) special regions (Acheh and Yogyakarta) and one (1) special capital city district (Jakarta Raya or Greater Jakarta). 221 The main islands are Java, Sumatra, Sulawesi and Kalimantan (the Indonesian portion of Borneo island) 222 . Coastal area in Indonesia has been utilized through a variety of economic activities such as the oil and gas industry, transportation and communication, shipping and ports, agriculture, fisheries, tourism, forestry, aquaculture, industry, mining and other coastal community activities. 223 The coastal area in Indonesia is probably the most unique and varied in terms of physical structure including shallow sandy shores, rocky shores, coral reefs, seagrass beds, muddy shores, estuaries, mangrove forests, salt marches, swamp forests and salt water lakes. 224 There are several issues that face the development and implementation of integrated coastal zone management in Indonesia, for example rapid expanding population in coastal zone, coastal communities who live in poverty, lack of coordinated development planning, poor enforcement of existing regulations, degradation of marine and coastal ecosystem, over exploitation of marine and coastal resources, pollution of marine and coastal resources, pollution of marine and coastal environments associated with marine and land based activities. 225 The Indonesian President is both the head of state and head of government, and is elected by consensus by the Majelis Permusyawaratan Rakyat (People's Consultative Assembly) for five-year terms. 226 Executive power resides in the Cabinet (appointed by the President), while legislative competence lies with the unicameral Dewan Perwakilan Rakyat (House of Representatives). 227 The members 221 Alan K.J.Tan, "Preliminary Assessment of Indonesia's Environmental Law", APCEL Report 15 September 1998, 12 April 2010, 10 am < <http://sunsite.nus.edu.sg/apcel/dbase/indonesia/reporti.html> > 222 Ibid. 223 Ibid. 224 Ibid. 225 Ibid. 226 Ibid. 227 Ibid. of the House of Representatives, in turn, make up the People's Consultative Assembly together with a number of indirectly-selected members. 228 Hence, the Assembly is the highest legislative body, and its decisions are the highest ranking sources of law in the legal hierarchy. 229 The provinces are headed by the Gubernur (governors). 230 The various propinsi or provinces (otherwise known as Level 1 regions) are further subdivided into kabupaten or districts (Level 2 regions, headed by the Bupati or district administrators), sub-districts and villages 231 . Within the provinces, there are municipalities or city governments which enjoy the same status as districts. These are headed by the walikotamadya (town administrators or mayors). Due to the emphasis on the unitary state, provincial autonomy is theoretically circumscribed. In practice however, the vastness of Indonesia means that provincial authorities have substantial freedom in many respects, particularly in relation to the implementation of centrally-enacted policies. 232 A three-tier court system is in place in Indonesia with general courts for criminal and civil cases in each district, appeal courts in each province, and the Mahkamah Agung (Supreme Court) at the national apex. 233 Upon independence of Indonesia on 17 th August 1945, the 1945 Constitution of the Republic of Indonesia 234 has been promulgated and this Constitution consists of 16 Chapters, 37 Articles and 2 Provisions. Basically the 1945 Constitution states the power of the People's Consultative Assembly, the executive power of Presidents, the appointment and duties of ministers and regional authorities, provisions on general elections, finances, citizen, human rights, religion and others. 235 228 Ibid. 229 Ibid.

230 Ibid. 231 Alan K.J.Tan, "Preliminary Assessment of Indonesia's Environmental Law", APCEL Report 15 September 1998, 12 April 2010, 10 am < <http://sunsite.nus.edu.sg/apcel/dbase/indonesia/reporti.html> > 232 Ibid. 233 Ibid. 234 As amended by the First Amendment of 1999, the Second Amendment of 2000, the Third Amendment of 2001 and the Fourth Amendment of 2002. 235 The 1945 Constitution consists of Preamble, Chapter I – Form of the State and Sovereignty, Chapter II The People's Consultative Assembly, Chapter III The Executive Power, Chapter IV Supreme Advisory Council (Deleted), Chapter V Ministers of State, 285 The fundamental aims and principles as stated in the preamble of the Constitution are 236 : 1. Belief in the One-God-Almighty; 2. Just and civilised humanity; 3. The unity of Indonesia; 4. Democracy which is guided by the wisdom of unanimity arising out of deliberations amongst representatives; 5. Social justice for the whole people of Indonesia. These five principles are called "Pancasila". Article 33(3) of the 1945 Indonesian Constitution provides the establishing principle of the management of its environmental law: 237 "Land and water and the natural resources therein shall be controlled by the State and shall be utilised for the greatest welfare of the people". In order to ratify international conventions, article 11 of the Indonesian Constitution 1945 states that the President has the authority to ratify the international conventions but upon approval from the Board of Representatives (Dewan Perwakilan Rakyat or DPR). The method of ratifying international conventions is provided in article 11 of the Indonesian Constitution and further Chapter VI Regional Authorities, Chapter VII The Council of Representative Council, Chapter VIIA The Council of Representatives of the Regions, Chapter VIIB General Elections, Chapter VIII Finances, Chapter VIIIA Supreme Audit Board, Chapter IXA State Territory, Chapter X Citizens and Residents, Chapter XA Human Rights, Chapter XI Religion, Chapter XII State, Defence and Security, Chapter XIII Education, Chapter XIV The National Economy and Social Welfare, Chapter XV National Flag, Language, Coat of Arms and Anthem, Chapter XVI Constitutional Amends, Transitional Provisions and Additional Provisions. 236 The Preamble to the Constitution, The 1945 Constitution of the Republic of Indonesia, As amended by the First Amendment of 1999, the Second Amendment of 2000, the Third Amendment of 2001 and the Fourth Amendment of 2002. 237 George, Mary, "Adequacy of Strait States Laws for the Control Of Marine Pollution in the Straits Of Malacca and Singapore", (2001) Volume 6 Issue 3&4 239-295. explained in the Presidential Letter Number 2826/HK/1960. 238 According to the Presidential Letter, the incorporation of international conventions into domestic laws is made by legislation through law or by presidential decree. 239 Since the Presidential Letter Number 2826/HK/1960 has been misused and became irrelevant at that time, the said Letter has been replaced by Law Number 24 Year 2000 240 pertaining to international agreements. The Law Number 24 Year, 2000 as provided in Article 9 (2), the international agreements entered into by Indonesia shall be incorporated into domestic law by legislation through law or by presidential decree. 241 The validation of international conventions through legislation needs the approval of the Board of Representative or Representatives. 242 On the other hand if the validation of domestic law is made through Presidential Decree, the Board of Representative should be informed. 243 The international convention's validation by legislation is through law if the convention relates to 244 : a) Political problems, peace, defence and state safety; b) Changes and determination of state delimitation of the Republic of Indonesia; c) Sovereignty and sovereign rights; d) Human rights and environment; e) Law making power; f) Debt. 238 Mochtar Kusumaatmadja, Introduction of International Law, Alumi, Bandung, 2003, p.61 239 Ibid. 240 Law Number 24 Year 2000 consists of 8 Chapters and 22 Articles: Chapter I (General Provision/Ketentuan Umum), Chapter II (The Making of International Agreement/Pembuatan Perjanjian Internasional), Chapter III (The Validation of International Agreement/Pengesahan Perjanjian Internasional), Chapter IV (The Act of Ratifying International Agreement/Pemberlakuan Perjanjian Internasional), Chapter V (To Retain International Agreement/Penyimpanan Perjanjian Internasional), Chapter VI (The Concluding of International Agreement/Pengakhiran Perjanjian Antarabangsa), Chapter VII (Stipulation of Transition/Ketentuan Peralihan) and Chapter VIII (Stipulation of Concluding/Ketentuan Penutup) . 241 Gazet by Republic of Indonesia Number 185 Year 2000. 242 Law Number 24 Year 2000, Article 10. 243 Id at, Article 11. 244 Id at, Article 10. The Board of Representatives may uphold the ratification of international conventions that stirred instability amongst the people of Indonesia. 245 Indonesia follows the dualism concept; therefore the act of ratification of international conventions has no automatic effect in incorporating international conventions into the domestic laws of Indonesia. The ratification of international conventions will create binding legal obligation for Indonesia under the convention. However there are international agreements that do not require ratification, these international agreements may enter into force directly after signature or

exchange agreements or diplomatic note or through other ways that have been agreed upon by the parties. International agreements included in this category are related to technical cooperation in the field of education, social, tourism, information on health, agriculture, forestry and cooperation of interprovincial or city.

5.5.2 Conventions indirectly related to HNS shipments in the Straits of Malacca and ratified by Indonesia Indonesia has ratified the following conventions which are indirectly related to the shipment of hazardous and noxious substances: a) International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78). The government of Indonesia has ratified MARPOL 73/78 and its protocol through Presidential Decree Number 46 Year 1986 dated on the 9 th September 1986. 246 Presidential Decree Number 46 Year 1986 is administered by the Department of Transportation. 247 b) International Convention for the Safety of Life at Sea 1974 as modified by the Protocol of 1978 (SOLAS 74/78). The government of Indonesia has ratified 246 <http://digilib.dml.or.id/go.php?id=jkpkforlink-gdl-publ-2003-sekretaria-100&q=tersebut> 247 Dra.Ria Mutiara & Melda Kamil Ariadno, *Penaatan Konvensi Kovensi Bidang Lingkungan Hidup*, (Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004). SOLAS 74/78 through Presidential Decree Number 65 Year 1980. 248 Presidential Decree Number 65 Year 1980 is administered by the Department of Environment. c) United Nations Convention on the Law of the Sea, 1982 (1982 LOSC). The government of Indonesia has ratified the 1982 LOSC through Law Number 17 Year 1985. 249 The implementation of the 1982 LOSC is administered by the Department of Marine and Department of Fishery. 250 d) The Convention on the Control of the Transboundary Movement of Hazardous Waste and their Disposal 1989 (the Basel Convention 1989). The Indonesian government has ratified the Basel Convention through Presidential Decree Number 61 Year 1993 dated 20 th September 1993. The Presidential Decree Number 61 Year 1993 is governed by the Department of Environment. 251

5.5.3 Indonesian domestic laws pertaining to HNS shipments in the Straits of Malacca There are several provisions of Indonesian domestic laws which are indirectly related to the shipment of HNS in the Straits of Malacca.

5.5.4 THE MARPOL 73/78 248 http://docs.google.com/gview?a=v&q=cache:MQBqa9jb_0MJ:legislasi.mahkamahagung.go.id/docs/KEPPRES/KEPPRES_1980_65_MENGESAHKAN%20INTERNATIONAL%20CONVENTION%20FOR%20THE%20SAFETY%20OF%20LIFE%20AT%20SEA,%201974,%20SEBAGAI%20HASIL.pdf+Undang-undang+no.65+tahun+1980&hl=id&gl=id 249 http://docs.google.com/gview?a=v&q=cache:qOEIrx00c1kJ:carsis.ubb.ac.id/files/UU_NO_17_TH_1985_KONVENSIPBB_TENTANG_HUKUM_LAUT.pdf+UndangUndang+No.17+tahun+1985&hl=i=id 249 www.menlh.go.id/i/art/pdf_1038462976.pdf 250 Dra.Ria Mutiara & Melda Kamil Ariadno, *Penaatan Konvensi Kovensi Bidang Lingkungan Hidup*, Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004 at 3-20. 251 Dra.Ria Mutiara & Melda Kamil Ariadno, *Penaatan Konvensi Kovensi Bidang Lingkungan Hidup*, Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004 at 4-1. As the government of Indonesia has ratified MARPOL 73/78 and its protocol through Presidential Decree Number 46 Year 1986, 252 domestic laws related to MARPOL 73/78 are: a) Law Number 5 Year 1983 on the Indonesian Exclusive Economic Zone which states Indonesia's obligation to protect and preserve the marine environment. 253 This statute applies the polluter pays principle 254 . Contravention of the law which results in environmental pollution is liable under the 2009 Environmental Protection and Management Law. 255 b) Law Number 17 Year 1985 is about the 1982 LOSC. This statute explains the protection and conservation of Indonesian marine environment. 256 c) Governmental Regulation Number 19 Year 1999 deals with control of marine pollution. Sections 9-12 prohibit causing marine pollution and the application of the prevention principle. d) Governmental Regulation Number 69 Year 2001 is about Ports, in particular: Section 3 deals with the duty of ports to monitor the pattern of ship navigation. Section 12 regulates the duty of the port to monitor the safety and security of the navigation Section 13 provides for facilitating the disposal of wastes . 252 The duties of the Department of Transportation are to communicate with the International Convention Secretariat, to implement activities related to the convention, to program and to coordinate activities related to the convention, to monitor and evaluate activities related to the convention and to approve the implementation of activities and projects from local and abroad. (Dra.Ria Mutiara & Melda Kamil Ariadno, *Penaatan Konvensi Kovensi Bidang Lingkungan Hidup*, (Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004) at 3-12. 253 Section 8 Law Number 5 Year 1983 Indonesian Exclusive

Economic Zone. 254 Section 11 Law Number 5 Year 1983 Indonesian Exclusive Economic Zone. 255 Section 16 Law Number 5 Year 1983 Indonesian Exclusive Economic Zone. 256 Section 10 Law Number 17 Year 1985 LOSC 1982, In addition, growing awareness, in the sense of unrest, about preservation of the environment, and ultimately to the United Nations to carry out Convention on the Environment in Stockholm in the year 1972. The waste is not restrained to the sea brought as a result of severe damage to the marine environment. Likewise, the pollution caused by accidents of giant ship, such as the Torrey Canyon in 1967 Caditz and Amoco in 1978, bringing the damage that very severe on the environment. Based on the realities above, the Convention determines that each country has obligation to

1 protect and preserve the marine environment. In additionally, the

Convention also determines that each country has sovereign rights to exploit resources natural wealth in accordance with its obligation to protect and preserve the marine environment. Section 41 requires facilities to provide for disposal of wastes. Section 68 is for open ports (to foreign ships) and provides facilities for preventive measures from marine pollution. e) Governmental Regulation Number 51 Year 2002 is about shipping: Sections 2, 3 and 4 provide that every ship should fulfill the rules and regulations of ship safety. Sections 5 and 7 state that ship should fulfill the rules to prevent pollution from the ship and to ensure the safety of ship. Section 49 states that every ship that navigates in Indonesian waters should fulfill the requirement of ship safety. Chapter VI, Section XI (Sections 81-86) deals with the requirement on ship safeties which include obtaining certificate of fitness, training, practices in avoiding leakage with the related equipments. Chapter VI, Part XIII (Sections 88-89) requires that the captain/owner of ship shall report to the port if any incident occurs. Chapter VIII explains prevention of pollution from ship, Part I (Sections 110-119): the captain/owner is under an obligation to prevent any intentional/accidental pollution from ship. Part II (Section 121-123) states that the captain/owner of the ship should be responsible for its ship pollution. f) Ministry of Transportation Decree Number 167/HM.207/PHB-86 states the requirement to have an international certificate to prevent oil and hazardous substances pollution. g) Ministry of Transportation Decree Number KM.215/AL/506/Phb-87, states the obligation to provide waste reception facilities at port.

5.5.5 The 1982 LOSC The government of Indonesia ratified the 1982 LOSC through Law Number 17 Year 1985 (this statute is about the validation of the articles from the convention), the implementation of the 1982 LOSC is administered by the Department of Marine and Department of Fishery. 257 Other laws are: a) Law Number 6 Year 1983 is about the Indonesian Exclusive Economic Zone. Section 16 states that penalties are provided for offenders in the 2009 Environmental Protection and Management. b) Law Number 6 Year 1996 is about Indonesian waters and deals with the rules in the 1982 Law of the Sea Convention c) Law Number 23 Year 1997 refers to the Environmental Management Law where Section 14 prohibits any activities that cause marine pollution. d) Governmental Regulation Number 19 Year 1999 is about control of marine pollution: Sections 9-12 prohibits any act that causes marine pollution. e) Law Number 1 Year 1993 is about the Continental Shelf and states that all activities of exploration and exploitation of sea bed resources should not cause marine pollution. f) President Republic of Indonesia Number 161 Year 1999 is about Indonesia's Maritime Council and the duty of the Maritime Council of Indonesia to assist and advise the President of Indonesia regarding aspects of sea.

5.5.6 The 1989 BASEL CONVENTION The Indonesian government ratified the Basel Convention through Presidential Decree Number 61 Year 1993 dated 20 th 257 The duties of the Department of Marine and the Department of Fishery are to communicate with the International Convention Secretariat, to implement activities related to the convention, to program and to coordinate activities related to the convention, to monitor and evaluate activities related to the convention and to approve the implementation of activities and projects from local and abroad. (Dra.Ria Mutiara & Melda Kamil Ariadno, Penaatan Konvensi Kovensi Bidang Lingkungan Hidup, (Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004) at 3-20. September 1993 which is administered by the Department of Environment through several orders as follows. 258 (a) Order of the Head for the Agency for Environmental Impact Control (Arahan Ketua Badan Pengendalian Dampak Lingkungan (Bapeda) Number 1 Year 1995. 259 This provision explains the techniques and requirements on Storing and Collecting of B3 Waste. B3 Waste of unknown nature and characteristic is required to be experimented at the laboratory. The outcome of the result should be reported to the Head of the Agency for

Environmental Impact Control. If the result is uncertain, the B3 waste will be re-experimented in the laboratory. Every storage and transportation of Hazardous and Toxic waste shall abide by the given techniques and requirements. a) Kep.Ka Bapedal No. Kep.02/Bapedal/09/1995 is about Waste Document 09/1995 260 This provision concerns the document on B3 wastes. It states that in each activity in transporting the Hazardous and Toxic waste from product to the storage, process, use of process, product of waste should be completed with the document of B3 waste Before filing in the document of B3 waste, each body is responsible for processing B3 waste and should get the registration number from the Agency for Environmental Impact Control (Bapedal). b) Kep. Ka Bapedal No. Kep.02/Bapedal/09/1995 is about the Rules to Treat the B3 Waste 261 . 258 The duties of the Department of Environment is to communicate with the International Convention Secretariat, to implement activities related to the convention, to program and to coordinate activities related to the convention, to monitor and evaluate activities related to the convention and to approve the implementation of activities and projects from local and abroad. (Dra.Ria Mutiara & Melda Kamil Ariadno, *Penaatan Konvensi Kovensi Bidang Lingkungan Hidup, (Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004)* at 4-1. 259 Dra.Ria Mutiara & Melda Kamil Ariadno, *Penaatan Konvensi Kovensi Bidang Lingkungan Hidup, Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004* at 4-2. 260 Dra.Ria Mutiara & Melda Kamil Ariadno, *Penaatan Konvensi Kovensi Bidang Lingkungan Hidup, Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004* at 4-2. This provision states the technical requirement that should be fulfilled in order to process or treat the B3 waste. The undertaken process will change the characteristic and composition of the nature of B3 waste to non-toxic and non-hazardous. The location, facilities and the processed product, every party responsible in taking part of processing should have a background of knowledge and training in treating the B3 waste. Every three months, report on the processed B3 waste should be submitted to the Head of the Agency for Environmental Impact Control. The rules of the Minister of Health, Republic of Indonesia Number 453/MEN.KES /PER/XUII/1983 is about hazardous substances 262 and the protection of the society and the environment from the danger of the hazardous substances. The salient features are: ? Section 2: The hazardous substances are classified to 4 categories; the most dangerous substances are in category 1 while the category 4 belongs to the least dangerous waste. ? Section 4: Company or person that receives, keep or produces the hazardous substances should obtain consent from the Minister. ? Section 11: The Minister of Health can require that certain hazardous substances shall be registered with the Department of Health before imported. ? Section 15: The processing of hazardous substances should be made to the least waste as fixed by the Minister. 261 Ibid. 262 Dra.Ria Mutiara & Melda Kamil Ariadno, *Penaatan Konvensi Kovensi Bidang Lingkungan Hidup, Laporan dari Kantor Menteri Negara Lingkungan dan Badan Kemitran Ventura Universitas Indonesia, 2004* at 4-5. ? Section 16: To include all the prohibitions pertaining to the hazardous substances for categories 1 & II. 5.5.7 LAW NUMBER 32 YEAR 2009 ON ENVIRONMENTAL PROTECTION AND MANAGEMENT The significance of the Law Number 32 Year 2009 on Environmental Protection And Management 263 is basically that it examines particular provisions relating to HNS shipments and penalties are provided for the offenders. Indonesia has legislated through various Acts and Presidential Decrees on HNS shipment but unfortunately those legislations do not provide the penalties for the wrongdoer. However, Indonesia will apply the penalties related to marine pollution as provided in the 2009 Environmental Management Act. Basically the 2009 Environmental Management Act is different from the 1997 Environmental Management Act because the 2009 Act has been strengthened by implementing principles of environmental law and at the same time the integration of transparency, participation, accountability and equity in protecting and managing the environment. 264 This Act is enacted by the Board of Representatives and the President of Indonesia. The Environmental Protection and Management Act 2009 (Law Number 32 2009) has 17 chapters and 127 articles. It consists of Chapter 1 which is on the 263 The Indonesian environmental law started with the Law Number 4 Year 1982, then it was amended to Law Number 23 Year 1997 and recently Law Number 32 Year 2009. Law Number 23 Year 1997 regarding Environmental Management 1997 has 11 chapters and 52 Articles, it consists of Chapter 1 is on the General Provisions, Chapter II is on Basic, Objective and Target, Chapter III is on Community Rights, Obligation and Role, Chapter IV is on Environmental Management Authority, Chapter V is on Preservation of Environmental Functions, Chapter VI is on Environmental Compliance Requirements, (Part 1 is on licensing, Part II is on Supervision, Part III is on Administrative Sanctions, Part IV is on Environmental Audits), Chapter VII is on

Environmental Dispute Settlement, (Part 1 is on General, Part II is on Out of Court Environmental Dispute Settlement, Part III is on Environmental Dispute Settlement Through the Court), Chapter VIII is on Investigation, Chapter IX is on Criminal Provisions, Chapter X is on Transitional Provisions, Section XI is on Closing Provisions. WAHDAN-Lingkarhayati's Blog, "Perbedaan antara UUNRI No.23 tahun 1997 Tentang Lingkungan Hidup dengan Undang-Undang Perlindungan Dan Pengelolaan Lingkungan Hidup (UUPPLH) No 32 Tahun 2009" 28 March 2010: 5 April 2010<http://lingkarhayati.wordpress.com>. 264 <http://www.lingkarhayati.wordpress.com>, 5 April 2010, 10 am. General Provisions, Chapter II is on Principle, Goal and Scope, Chapter III is on Planning, Chapter IV is on Utilization, Chapter V is on Control, Chapter VI is on Preservation, Chapter VII is on Management of Hazardous And Toxic Materials As Well As Waste of Hazardous And Toxic Materials, Chapter VIII is on Information System, Chapter IX is on Task And Authority of the Government and Regional Government, Chapter X is on Rights, Obligations and Prohibitions, Chapter XI is on the Public Participation, Chapter XII is on Supervision and Administrative Sanctions, Chapter XIII is on Settlement of Environmental Disputes, Chapter XIV is on Investigation and Verification, Chapter XV is on Penal Provisions, Chapter XVI is on Transitional Provisions and Chapter XVII is on Conclusion. As stated in the preamble of The 2009 Environmental Protection And Management Act a proper and healthy environment constitutes a human right of every Indonesian citizen as mandated in Article 28 of the Constitution of 1945 and that national economic development as mandated by the Constitution of 1945 is executed on the basis of sustainable and environmentally sound development principles, that the regional economic spirit in the execution of public administration of the Unitary State of the Republic of Indonesia has brought about changes in relations and authority between the government and regional government, including in the field of environmental protection and management, that in order to better guarantee legal certainty and to protect every one's right to obtain a proper and healthy environment as part of the extensive environmental protection, it is necessary to renew Law Number 23/1997 on Environmental Management. Certain related provisions of HNS shipment in the General Provisions in Chapter 1 of the 2009 Environmental Protection And Management Act are significant and defined as follows: Environment shall be a "totality of space with all materials, resources, situations and creatures, including humans and their behaviour that influence the nature, continuation of livelihood and human welfare as well as other creatures"; Environmental Protection and Management shall be "systematic and integrated efforts to preserve the functions of the environment and prevent environmental pollution and/ or destruction, which cover planning, utilization, control, preservation, supervision and law enforcement". Very significantly, the Act also provides for Strategic Environmental Assessment hereinafter abbreviated to KLHS which shall be "a series of systematic, comprehensive and participatory analyses to ascertain that the principles of sustainable development have become a basis and been integrated into the development of a region and /or policy, plan and/ or program." Environmental Impact Analysis hereinafter called Amdal shall be "a study on substantial impacts of a planned business and/or activity in the environment, which is needed for making decision on the operation of business and/ or activity"; Environmental Pollution shall be "the incoming or inclusion of creatures, substances, energies and/or other components into the environment by human activities so as to exceed the stipulated environment quality standard"; Standard Criteria for Environmental Destruction shall be "limits of change in physical, chemical and/ or biological characteristics of the environment with are tolerable by the environment so as to be able to preserve its functions"; Environmental Destruction shall be "human actions changing directly or indirectly the physical, chemical and/ or biological characteristics of the environment so as to exceed the standard criteria for environmental destruction"; Environmental Damage shall be "a direct and/ or indirect change in physical, chemical and /or biological characteristics of the environment, which exceeds the standard criteria for environmental damage, Waste shall be remainders of a business and/or activity; Hazardous and Toxic Materials hereinafter abbreviated to B3 shall be "substances, energies and/or other components which may pollute and/or destroy directly or indirectly the environment and/ or endanger the environment, health as well as continuation of life of human and other creatures because of their characteristics, concentration and/or quantity"; Waste of Hazardous and Toxic Materials hereinafter called Waste of B3 shall be "remainders of a business and/or activity containing B3"; B3 Waste Management shall be "an activity covering the reduction, storage, collection. Transportation, utilization, treatment and/or filling"; Central Government hereinafter called the government shall be the President of the Republic of Indonesia holding the executive power of the Republic of Indonesia as referred to in the Constitution of 1945; Regional Governments shall be governors, regents or mayors and regional apparatuses as regional administrators;

Minister shall be the Minister in charge of environmental protection and management affairs. Environmental protection and management shall be executed on the basis of principles of state responsibility; conservation and sustainability; harmony and equilibrium; integration; benefit; prudence; justice; eco-region; biological diversity; polluter pays; participation; local wisdom; good governance; and regional autonomy. 265 Environmental Protection and Management shall aim at protecting the territory of the Republic of Indonesia from environmental pollution and/ or damage; assuring human safety, health and life; assuring the continuation of life of creatures and ecosystem conservation; preserving the conservation of environmental 265 Article 2 of Environmental Protection And Management (Law Number 32/2009). functions; achieving environmental harmony, synchronization and balance; assuring the fulfilment and protection of the right to the environment as part of human rights; controlling the utilization of natural resources wisely; realizing sustainable development; and anticipating global environmental issues 266 . Environmental Protection and Management shall cover planning, utilization, control, preservation, supervision and enforcement of laws 267 . There are nine (9) instruments in order to prevent pollution and/or damage: Strategic Environmental Assessment (KLHS); layout; quality standard of the environment; standard criteria for environmental damage; Environmental Impact Analysis (Amdal); Environmental Management and Monitoring Programs (UKL-UPL); licensing; economic instrument of the environment; environment-based legislation; environment-based budget; environmental risk analysis; environmental audit; and other instruments in accordance with the need and/ or developments of science. 268 The Amdal document shall contain: study on impact of business and/or activity plan; evaluation of activities around the location of business and/or activity plan; public recommendation, input as well as response to business and/or activity plan; estimate of the coverage and important characteristic of the occurring impact if the business and/or activity plan is/ are executed; holistic evaluation of the occurring impact to determine environmental feasibility; and environmental management and monitoring plan. 269 The Amdal document shall be judged by Amdal appraisal commission established by the Minister, governors or regents/ mayors by virtue of their authority. 266 Article 3 of 2009 Environmental Protection And Management. 267 Ibid. 268 Ibid. 269 Article 25 of the Environmental Protection And Management. The HNS related provisions in the 2009 Environmental Protection and Management are stipulated in Chapter VII under Management of Hazardous and Toxic Materials as well as waste of hazardous and toxic materials. There are nine (9) articles which deal with the waste and materials of HNS in the 2009 Environmental Protection and Management. The Act states that "Any person importing into Indonesia hazardous and toxic waste, producing, carrying, distributing, storing, utilizing, disposing, processing and/ or piling B3 shall be obliged to manage the said B3." 270 Any person producing waste of B3 shall be obliged to manage the produced waste of B3. 271 If the said party is unable to manage directly waste of B3, the management may be entrusted to the other party. 272 It should be noted that the management of B3 waste is based on securing a licence from the Minister, governors or regents/ mayors by virtue of their authority. 273 Further provision in the management of B3 waste shall be regulated in a government regulation. 274 There are ten (10) matters that are prohibited by the citizen of Indonesia; importing B3 which is forbidden according to legislation in to Indonesia; importing B3 waste into Indonesia, dumping B3 and B3 waste into environmental media and others. 275 Anyone having action, business and/or activity using B3, producing and/or managing B3 waste and/or causing serious threat to the environment shall be responsible absolutely for the incurred losses without necessity of proving substance of mistake. 276 In other words, this Act applies the concept of strict liability to persons responsible for causing pollution of B3 to the environment. Any person treating B3 waste without the permit as referred to in Article 59 paragraph (4), shall 270 Article 58 (1) of the Environmental Protection And Management. 271 Id at Article 59 (1) 272 Id at Article 59 (3) 273 Id at Article 59 (4) 274 Id at Article 59 (7) 275 Id at Article 69 (1) 276 Id at Article 88 be subject to imprisonment for one year at the minimum and three (3) years at the maximum and a fine amounting to one billion rupiah (Rp1,000,000,000) or RM 3530.97 277 at the minimum and three billion (Rp3,000,000,000) or RM 10592.93 278 at the maximum. 279 Any person producing B3 waste and not conducting the treatments as referred to in Article 59, shall be subject to imprisonment for one year (1) at the minimum and three (3) years at the maximum and a fine amounting to one billion (Rp1,000,000,000) or in RM 3,530.97 280 at the minimum and three billion (Rp3,000,000,000) or RM 10,592.93 281 at the maximum. 282 Any person importing B3 waste into the territory of the Republic of Indonesia as referred to in Article 69 paragraph (1) (d), shall be subject to imprisonment for five (5) years at the minimum and fifteen (15) years at the maximum and fifteen billion rupiah (Rp15,000,000,000) or RM 52,964.63 283 at the maximum. 284

Finally, the implementing regulations mandated in this law shall be stipulated no later than one year as from the date of enforcement of this law. 285 The main points in the 2009 Environmental Protection And Management Act not regulated in the 1997 Environmental Management Act, are 286 : a) a comprehensive element in managing the environment; b) a clear and distinct separation of authority between local government and government; c) strengthening environment managing control; d) a strengthening instruments through regulation on environment pollution and/or prevention of damage, which cover study of environment strategies, 277 1MYR=2.2936 IDR, <http://www.xe.com/ucc/convert>. 12 April 2010, 10 am. 278 Ibid 279 Article 102of 2009 Environmental Protection And Management. 280 1 MYR= 2.2936 IDR, loc. cit. 281 Ibid. 282 Article 103 of 2009 Environmental Protection And Management. 283 1 MYR= 2.2936 IDR, loc. cit.. 284 Article 107 of 2009 Environmental Protection And Management. 285 Id atArticle 126 of 2009 Environmental Protection And Management. 286 WAHDAN-Lingkarhayati's Blog, Perbedaan antara UUNRI No. 23 TAHUN 1997 Tentang Lingkungan Hidup dengan Undang- Undang Perlindungan Dan Pengelolaan Lingkungan Hidup (UUPPLH) No 32 Tahun 2009 28 March 2010, 5 April 2010,4.00 pm< <http://lingkarhayati.wordpress.com> >. environment lay out, a quality of the environment, Amdal, a criteria on environmental damage, the action in managing the environment and the action in supervising the environment, licensing and other instruments that are related to environment management; e) the utilisation and application of licensing as a control instrument; f) the enforcement of civil law, administrative law and criminal law in a clear and better version; g) strengthening the protection and management of the environmental body to be more effective and responsive; and h) strengthening the role of supervisor of an environmental authority. 5.6 SINGAPORE'S LAWS ON HNS SHIPMENT IN THE STRAITS OF MALACCA 5.6.1 Singapore's Constitution 1965 In Singapore's statutes or Acts (numbered as "Chapters") are written laws made by the Singapore Parliament. 287 Subsidiary legislation (called Regulations or delegated or subordinate legislation), is written law made by the government departments or statutory boards, such as the Maritime and Port Authority of Singapore and not directly by Parliament 288 . The most important statute or supreme law is the Constitution of the Republic of Singapore 289 . All other statutes must be consistent with it. 290 The Constitution of Singapore consists of the following 14 parts: preliminary, the republic and the constitution, protection of the sovereignty of the Republic of Singapore, fundamental liberties, the government, the legislature, the Presidential Council for Minority Rights, the judiciary, the public service, 287 Ibid. 288 Lye, Lin Heng, "Environmental Pollution Laws in Singapore", 21 February 2010 <<http://www.abanet.org/environ/committees/intenviron/newsletter/feb03/Singapore/>>. 289 Ibid. 290 Ibid. citizenship, financial provisions, special powers against subversion and emergency powers, general provisions and transitional provisions. 291 Attention to environmental issues was inevitable in Singapore, given that Singapore experienced rapid economic growth in the 1970s and 1980s, which was accompanied by increased air and water pollution and by increased effective government efforts to limit environmental damage. 292 Basically the management of the environment is under the Ministry of Environment, established in 1972. 293 The Ministry of Environment is responsible for providing the infrastructure for waste management, as well as enforcing and administering legislation relating to pollution control and public health. 294 The government agency which is responsible for the regulation of marine pollution is the Maritime and Port Authority 295 (MPA). In this section, the implementation of several conventions pertaining to the shipment of hazardous and noxious substances into the domestic laws of Singapore is discussed. The implementation of the indirectly related HNS conventions are legislated through the acts enacted by Parliament or subsidiary legislation (in the form of Regulations and Orders) issued by the Ministers. 5.6.2 Conventions indirectly related to HNS shipments in the Straits of Malacca and ratified by Singapore Singapore has ratified the following conventions which are related to the shipment of hazardous and noxious substances: 291 Constitution of Singapore, 25 February 2010, [http:// en.wikipedia.org/wiki /Constitution_of _Singapore](http://en.wikipedia.org/wiki/Constitution_of_Singapore). 292 Tookey, Douglas L, "Singapore's Environmental Management System: Strengths And Weaknesses And Recommendations For The Years Ahead", (1998) 23 William and Mary Environmental Law and Policy Review 169-257. 293 Ibid. 294 Alan K. J. Tan, "Preliminary Assessment of Singapore's Environmental Law, APCEL Report: Singapore, 15 Sept 1998, < [http://sunsite.nus.edu.sg/apcel /dbase/singapore/reports.html](http://sunsite.nus.edu.sg/apcel/dbase/singapore/reports.html) , 12 April 2010, 9.30 am>. 295 MPA was established in February 1996. The MPA works closely with local and foreign governmental and private organisations and the shipping community to protect Singapore's water from marine pollution. The MPA adopt a comprehensive approach towards; a) prevention that encompasses implementing internationally adopted regulations and strictly enforcing them; and b) maintaining the highest standard of preparedness at all times which includes putting in

place and in constant readiness emergency plans that comprise effective structures/organisations for quick and effective response, regular exercise and reviews. (source) a) International Convention For the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78); b) International Convention for Safety of Life at Sea 1974 (1974 SOLAS) and c) Basel Convention on Transboundary Movement of Hazardous Waste 1989. 5.6.3 Singapore's domestic laws pertaining to HNS shipments in the Straits of Malacca Singapore's domestic laws pertaining to HNS shipments are considered under several laws, namely: (a) The Territorial Waters Jurisdiction Act 1878; (b) The Prevention of Pollution of the Sea Act 1990 (hereinafter PPSA) 296 and the subsidiary legislation; (c)

2 Hazardous Waste (Control of Export, Import And Transit) Act (Chapter 122A) 13 of 1997, 1998 Revised Edition,

Amended 9 of 2003; (d) the Dangerous Goods Merchant Shipping (Safety Convention) Regulations 1990; (e) Maritime And Port Authority Of Singapore Act (Chapter 170A) 1997; 5.6.4 The legal status of Singapore's territorial waters. Singapore's territorial waters are governed by The Territorial Waters Jurisdiction Act 1878 297 and the Straits Settlements and Johore Territorial Waters (Agreement) Act 1928 298 . These Acts continue to apply in Singapore after independence in 1965 and are included in the Revised Edition of Singapore Statutes. 299 .The Straits Settlements and Johore Territorial Waters (Agreement) Act 1928 gives effect to a 296 Act 18 of 1990, 1991 Revised Edition, 1999 Revised Edition. 297 Base Versions (41 & 4) Vict. C.73), Revised Edition 1985, Amended by See also Application of English Law Act No.35/93 (Singapore), An Act to regulate the Law relating to the Trial of Offences committed on the Sea within a certain distance of the Coasts of Her Majesty's Dominions. 26 Feb2010, http://statutes.agc.gov.sg/non_version/non_version/cgi-bin/cgi_gettop.pl?actno=1997-REVED-IAI&do.. 298 Base Versions (18&19 Geo.5 c.23, Revised Edition 1985, Amended By See also Application of English Law Act No. 35/93 (Singapore)), An Act to approve an Agreement concluded between His Majesty and the Sultan of the State and Territory of Johore. 26 February 2010. 299 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. 1927 Agreement on the boundary between the territorial waters of Singapore and Johore in 1993. 300 These two Imperial Acts have been declared as part of the laws of Singapore by the Application of English Law Act 1993. 301 The government of Singapore has accepted the concept of the 12-mile territorial sea as set out in a Government Issue on 15 September 1980. 302 However, Singapore has a very little scope to claim any extended area for her Exclusive Economic Zone as Singapore is categorized as a State falling under the "Group of Landlocked and Geographically Disadvantage States" at the Law of the Sea Conference. 303 5.6.5 Prevention of Pollution of the Sea Act 1990 (CHAPTER 243) This Act gives effect to the International Convention for the Prevention of Pollution from Ships 1973 as modified and added to by the Protocol of 1978, and to other international agreements relating to the prevention, reduction and control of pollution of the sea and pollution from ships and makes provisions generally for the protection of the marine environment and for the prevention, reduction and control of pollution of the sea and pollution from ships, and for matters related thereto. 304 Singapore acceded to MARPOL 73/78 Convention on 1 November 1990. 305 In order to give effect to the obligations under MARPOL 73/78 Convention, the Prevention of Pollution of the Sea Act 1990 was passed by Parliament on 30 August 1990. 306 The Act received the presidential assent on 28 September 1990 and was 300 Ibid. 301 Ibid. 302 Ibid. 303 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. 304 The Preamble of the Prevention of Pollution of the Sea Act 1990. 305 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. 306 Act 18 of 1990-Prevention of Pollution of the Sea Act 1990 Date of First Reading : 18.7.90 (Bill No. 17/90 published on 19.7.90) Date of Second and Third Readings : 30.8.90 Date of commencement: 1.2.91 published on 5 October 1990. 307 The Prevention of Pollution of the Sea Act came into force on 1 February 1991 which coincided with the date MARPOL 73/78 came into force in Singapore. 308 The Act also repealed the former Prevention of Pollution of the Sea Act, which prior to 1 February 1991 had enabled effect to be given to the 1954 International Convention for the Prevention of Pollution of the Sea by Oil. 309 Singapore was never a party to this Convention but

nevertheless gave effect to it in her domestic laws through a modified form in Part II of PPSA 1990 (hereinafter PPSA 1990) which deals with pollution from land and apparatus. 310 The Prevention of Pollution of the Sea Act 1990 consists of 36 sections and is divided into 6 parts 311 . Part I (sections 1-2) is the preliminary provision regarding the short title and the interpretation of the Act. 312 Part II (sections 3-5) contains provision on prevention of pollution from land and apparatus. Part III (sections 6- 10) covers the provisions on prevention of pollution from ships. Part IV (sections 11-16) consists of the provisions on preventive measures against pollution of the sea. Part V (sections 17-21) includes the provisions of recovery of costs and finally Part VI (sections 22-35) which comprises miscellaneous provisions. "Appointed authority" means the Maritime and Port Authority of Singapore Act (Cap.170A) and any person appointed by the Minister for the purposes of this Act or any regulations made thereunder; "Authority" means the Maritime and Port Authority of Singapore established under the Maritime and Port Authority of Singapore Act; "discharge" means as in relation to harmful substances or effluents containing such substances, 307 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. 308 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore" (1994) Singapore Journal of Legal Studies 52- 90. 309 Ibid. 310 Ibid. 311 The Singapore's PPSA provisions are modeled on the UK legislation, the Merchant Shipping 1979 and the Australian Protection of the Sea (Prevention of Pollution from Ships) Act 1983. Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52-90. 312 Most of the definitions follow those used in the MARPOL Convention with appropriate modifications where necessary. Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52-90. means any release howsoever caused from a ship, place or thing and includes any escape, disposal, spilling, leaking, pumping, emitting or emptying but does not include- a) release of harmful substances directly arising from the exploration, exploitation and associated off-shore processing of sea-bed mineral resources: or b) release of harmful substances for purposes of legitimate scientific research into pollution abatement or control". "Harmful substances" means any substance which, if introduced into sea, is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea, and includes any substance subject to control under this Act; "in packaged form" means in an individual package or receptacle including a freight container or a portable tank or tank container or tank vehicle or shipborne barge or other cargo unit containing harmful substances for shipment; "marine pollutant" means a substance which is identified as a marine pollutant in the International Maritime Dangerous Goods Code published by the International Maritime Organisation, as amended from time to time; "master" includes every person, except a pilot, having command or charge of any ship; "noxious liquid substances" means any substance which is prescribed by regulations as being a noxious liquid substance and which is subject to the provisions of Annex II of the Convention; means the person registered as the owner of the ship or, in the absence of registration, the person owning the ship or the bareboat charterer of the ship; and in the case of a ship owned by a state and operated by a company which in that state is registered as the ship's operator, "owner" shall include such state; "place on land" includes anything resting on the bed or shore of the sea, or of Singapore waters, and also includes anything afloat (other than a ship) if it is anchored or attached to the bed or shore of the sea or of Singapore waters; "reception facilities" means facilities which enable ships to discharge or deposit residues and mixtures that contain oil or noxious liquid substances; "Singapore ship" means a ship registered under Part II of the Merchant Shipping Act (Cap.179); "Singapore waters"

2 means the following waters: a) the whole of the sea within the seaward limits of the territorial waters of Singapore; and b) all other waters (including inland waters) which are within these limits and are subject to the ebb and flow of the ordinary tides;

From the interpretation, the terms of "marine pollutant" and "noxious liquid substances" are referring to some of the list of HNS substances as stated in the HNS Convention 1996. Regulation 2(2) of the Prevention of Pollution of the Sea (Noxious Liquid Substances in Bulk) Regulations ("Noxious Liquid Substances

Regulations") 313 provides that for the purposes of the definition of "noxious liquid substance" in section 2 of the Act, the substances prescribed as being noxious liquid substances shall be such substances as are designated in Appendix I to Annex II or provisionally assessed under the provisions of regulation 3(4) of Annex II as falling into category A, B, C or D. Therefore the need to examine the provisions of the PPSA 1990 which are indirectly related to HNS shipment in Singapore arises. The provisions in Part II of the PPSA 1990 consist of Prevention of Pollution from Land and Apparatus. Section 3 states that any person who puts, throws, casts or deposits into Singapore waters, or to causes to be put, or has thrown, cast or deposited thereinto, any oil, oily mixture, refuse, garbage, plastics, waste matter, 313 Chapter 243, Regulation 2 of the 1990 Ed of Subsidiary Legislation. Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52-90. carcass, noxious liquid substances, marine pollutant in packaged form or trade effluent,

2 shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000 fine or two (2) years' imprisonment

or both. As pointed out by Lim, part II retains with modifications the provisions of the repealed Prevention of Pollution of the Sea Act relating to marine pollution outside the ambit of MARPOL. The question is whether an Act enacted to give effect to an international convention can contain domestic provisions on land-based pollution? Lim further explained in the case of *Tan Ah Yeo & Anor v Seow Teck Ming & Anor*, Judge Chao described as fallacious the argument advanced by counsel that just because the Imperial Maritime Conventions Act 1911 was enacted to give effect to two Conventions, Parliament may not widen the scope of the Act to cover its own nationals or inland water craft. Perhaps the most related provisions relating to HNS shipment is in Part III of PPSA 1990 which consists of prevention of pollution from ships. Section 6 states that if any disposal or discharge of refuse, garbage, waste matter, trade effluent, plastics or marine pollutant in packaged form occurs from any ship into Singapore waters, the master, the owner and the agent of the ship shall each be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000 fine or two (2) years' imprisonment or both. The exemptions to the strict liability offence apply 314 :

a) for the purpose of securing the safety of a ship or saving life at sea or; b) for the refuse, garbage, waste matter, trade effluent, plastics or marine pollutant in packaged form, as the case may be, which have escaped from the ship in consequence of damage, other than intentional damage, to the ship or its equipment, and all reasonable precautions were taken after the occurrence of the 314 Section 6 (2) a & b of 1990 PPSA. damage or the discovery of the discharge for the purpose of preventing or minimising the escape of the refuse, garbage, waste matter, trade effluent, plastics or marine pollutants in packaged form, as the case may be. The damage to a ship or its equipment shall be taken to be intentional damage if the damage arose when the master, the owner or the agent of the ship acted with intent to cause the damage or acted recklessly and with knowledge that damage would probably result 315 . Where a person who proposes to export or import noxious liquid substances carried in bulk in a ship, that person or the master of the ship is as prescribed and required to notify the Port Master or an officer designated by the Port Master of the proposal 316 . Section 9 (2) PPSA 1990 states that a failure to notify the Port Master or the officer designated by the Port Master, such person and the master of the ship shall each be liable on conviction to a fine not exceeding \$5,000. Section 9 PPSA 1990 gives effect to and complies with the requirements of Regulation 3 on Annex II of MARPOL, the regulation 13 of the Noxious Liquid Substances Regulation, where a person who proposes to export or import any noxious liquid substance referred to in Regulation 3(4) of Annex II by having that liquid substance carried in bulk in a ship, that person or the master of the ship shall notify the Port Master of the proposal and the notification must be made (in the form provided in the Fourth Schedule to the Regulations) at least 24 hours before the estimated time of departure or arrival of the ship. 317 315 Section 6 (4) a & b of 1990 PPSA. 316 Section 9 (1) of 1990 PPSA. 317 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. Section 10 PPSA 1990 regulates any discharge of a noxious liquid substance, or of a mixture containing a noxious liquid substance, being a substance or mixture carried as cargo or part cargo in bulk, occurs from a Singapore ship into the sea or from any ship into Singapore waters, the master, the owner and the agent of

the ship shall each be guilty of an offence and shall each be liable on conviction to a fine not exceeding \$10,000 or to imprisonment for a term not exceeding two (2) years or to both. The discharge of a noxious liquid substance or a mixture containing such substance from a ship shall not apply 318 ; a) for the purpose of securing the safety of a ship or saving life at sea, b) the substance or the mixture which escaped from the ship in consequence of damage other than intentional damage to the ship or its equipment and all reasonable precautions were taken after the occurrence of the damage or the discovery of the discharge for the purpose of preventing or minimising the escape of the substance or the mixture, or c) the discharge was for combating specific pollution incidents in order to minimise the damage from pollution and was approved by the appointed authority and where the discharge occurred in the jurisdiction of the government of a country other than Singapore, by that government. The damage to a ship or to its equipment shall be taken to be intentional damage, if the master, owner or agent of the ship: a) acted with intent to cause the damage; or b) acted recklessly and with knowledge that damage would probably result. 318 Section 10(2) PPSA 1990. It is for the defendant to show that the damage was not intentional and the escape occurred as a result of damage other than intentional damage 319 . It is interesting to note that in Singapore, the master, owner and agent are each liable (as stated in sections 6 & 10 PPSA 1990) because it is desirable to prevent carelessness on the part of the master as well as to prevent collusion with the owner or agent who could save a great deal of money by cleaning the ship's tanks at sea 320 . However if compared to the situation in the United Kingdom, the Merchant Shipping Act 1979 only makes the master and owner individually liable to the prescribed penalty 321 . Many acts of pollution are criminal in nature and fines are levied upon the offenders. 322 Therefore, it is necessary to create criminal offences in order to enforce the provisions of Article 4 of MARPOL which requires parties to prohibit violations of the requirements of the Convention and establish sanctions under their laws. 323 The example in applying strict liability offence is shown in the case of Jupiter Shipping Pte Ltd v Public Prosecutor. 324 Although the case is basically on oil pollution and not the pollution from "marine pollutant" or "noxious liquid substances" from ship, the intention here is to establish the strict liability offence by the offender according to PPSA 1990. On 2 December 1991 the agents of a vessel Hudson Bay docked at the Singapore Harbour and caused an oil slick of 1,500 square metres in Singapore waters. Cleaning operations were carried out by the anti- 319 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. 320 Ibid. 321 Ibid. 322 George, Mary, Adequacy of Strait States Laws For The Control Of Marine Pollution In The Straits Of Malacca And Singapore, (2001) Asia Pacific Journal Of Environmental Law, Volume 6, Issue ¾ 239-295. 323 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. 324 [1993] 2 SLR 69. pollution sea unit of the Port of Singapore Authority. The costs of these operations amounted to \$12,859 and were paid in full by the appellant, the agents of Hudson Bay. The agents of Hudson Bay were charged with an offence under Section 7 of the Prevention of Pollution of the Sea Act. Although the appellants were first offenders and had pleaded guilty, they were fined \$10,000 which was significantly higher than the usual range of fines for the offence. They appealed against the sentence as being manifestly excessive. The learned Chief Justice Yong Pung How dismissed the appeal and accepted that it was common ground between the parties that the offence was one of strict liability, merely requiring proof of discharge of oil from a ship into Singapore waters. The sentence imposed for strict liability offences should be measured by the approval of society regarding the nature of the offence committed and not by, except in the most serious cases in terms of consequences as well as conduct, the presence of fault or antecedents of the offender. In the light of growing awareness of the damaging effects of oil pollution on a national scale, and in order to combat this, the courts regard offences of pollution with the utmost gravity. Part IV of the PPSA 1990 consists of provisions on pollution control in order to protect the marine environment from pollution by ships. As stated in section 31, evidence of an analyst is required in order to prove "noxious liquid substances" or "marine pollutant" by persons qualified to be analysts and

2stating the result of his analysis which is admissible in evidence in any proceedings for an offence under this Act as prima facie evidence of the facts stated in the certificate and of the correctness of the result of the analysis or examination. 325 The

Authority requires cargo record books to be carried in all Singapore ships and in all ships in Singapore waters, being ships which carry noxious liquid substances in bulk, and requires the master of any ship to record in the cargo record book carried by it. 326 The particulars that may be prescribed follow those found in Regulation 9 of Annex II to the MARPOL Convention: the carrying out, on board or in connection with the ship, of such of the following operations as may be prescribed such as loading and the unloading of cargo, the internal transfer of cargo, the cleaning and ballasting of cargo tanks and the discharge of ballast from cargo tanks. 327 According to section 14 (1) of PPSA 1990, if any ship fails to carry an oil record book or cargo record book as is required under sections 12 or 13, the owner, agent or the master of that ship shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000. Any false or misleading entry by any person in any oil record book or cargo record book

2 shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000 or to imprisonment for a term not exceeding 12 months or to both. 328 **The** record book or a

certified copy of an entry in the book will be admissible as evidence of the facts stated therein in any legal proceedings under the Act 329 . Section 15 of the PPSA 1990 provides that any actual or probable discharge of any harmful substance occurs from a Singapore ship into any part of the sea or from any ship into Singapore waters, the master of the ship shall report to such officer as may be prescribed. Failure to report is an offence 326 Section 13 (1) (a) The cargo record books require the master of any ship to record the following operations of ships which carry noxious liquid substances in bulk : i) the loading of cargo; ii) the internal transfer of cargo; iii) the unloading of cargo; iv) the cleaning of cargo tanks; v) the ballasting of cargo tanks; vi) the discharge of ballast from cargo tanks; vii) the disposal of residues to reception facilities; or viii) the discharge into the sea or removal by ventilation of residues in accordance with any regulations made under this Act 327 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. 328 Section 14 (3) of 1990 PPSA. 329 Charles Lim, loc. cit and such person shall be liable on conviction to a fine not exceeding \$5,000. 330 Section 15 PPSA of the 1990 will give effect to Article 8 and Protocol 1 of the MARPOL Convention. 331 The provisions in Part V of the PPSA 1990 consists of five (5) sections on Recovery Of Costs. Section 17(1) states that the owner of the ship shall be liable to pay for the costs of any measure reasonably taken by the appointed authority after the discharge for the purpose of removing it and for preventing or reducing any damage caused in Singapore by contamination resulting from the discharge of any refuse, garbage, waste matter, plastics, marine pollutant or trade effluent that subsequently drifts or flows into Singapore waters. Where the refuse, garbage, waste matter, plastics, marine pollutant in packaged form or trade effluent is discharged from two or more ships, each of the owners shall be liable, jointly and severally with the other or others, for the whole of the damage or cost for which the owners together would be liable under this section. 332 According to section 18(1), the owner of the ship shall be liable to pay for the costs of any measure reasonably taken by the appointed authority after the discharge for the purpose of removing it and for preventing or reducing any damage caused in Singapore by contamination resulting from the discharge of any oil, oily mixture or noxious liquid substance. Where the oil, oily mixture or noxious liquid substance is discharged from two or more ships, each of the owners shall be liable, jointly and severally with the other or others, for the whole of the damage or cost for which the owners together would be liable under this section. 333 The measures taken after the 330 Section 15 (4) of 1990 PPSA. 331 Charles Lim, Aeng Cheng, "Environmental Protection Of The Seas In Singapore"(1994) Singapore Journal of Legal Studies 52- 90. 332 Section 17(2) of 1990 PPSA. 333 Section 18 (1) of 1990 PPSA. discharge of oil, oily mixture or noxious liquid substance for the purpose of preventing or reducing any damage caused by contamination resulting from the discharge shall include actions taken to remove the oil, mixture or substance from the water and foreshores or the taking of such other actions as may be necessary to minimise or mitigate damage to the public health or welfare but not limited to fish, wildlife, and public and private property, foreshores and beaches. Nevertheless this section shall not apply to any discharge of oil or oily mixture where section 3 of the Merchant Shipping (Civil Liability and Compensation for Oil Pollution) Act (Chapter 180) applies. The recovery of costs for removing oil, oily

mixture and substances discharged from land or apparatus, the person in charge of that place shall be liable to pay for the costs of any measure taken by the appointed authority. 334 Part VI of the PPSA 1990 consists of miscellaneous provisions. An inspector is a person who is a surveyor of ships or appointed in writing by the Director to be an inspector. 335 An inspector may exercise the powers for any of the following purposes - 336 a) go on board a ship with such assistants and equipment as he considers necessary; b) require the master of a ship to take such steps as the inspector directs to facilitate the boarding; c) inspect and test any machinery or equipment of a ship; d) require the master of a ship to take such steps as the inspector directs to facilitate the inspection or testing of any machinery or equipment of the ship; e) open, or require the master of a ship to cause to be opened, any hold, bunker, tank, compartment or receptacle in or on board the ship; f) require the master of a ship to produce a record book required by any regulations made under this Act carried in the ship or any other books, documents or records relating to the ship or its cargo that are carried in the ship; g) make copies of, or take extracts from, any such books, documents or records; h) require the master of a ship to certify that a true copy of an entry in a record book required by any regulations made under this Act to be carried on board the ship is a true copy of such an entry; i) examine, and take samples of, any substances on board a ship; and j) require a person to answer questions. However, an inspector may exercise powers for the above purposes only to ascertain- a) whether a provision of this Act or any regulations made thereunder that is applicable in relation to a Singapore ship has been complied with in respect of that ship; b) whether there has been a discharge from a ship in contravention of this Act or any regulations made thereunder; c) whether a provision of the Convention that is applicable in relation to a ship other than a Singapore ship has been complied with in respect of that ship; or d) whether a provision of a law of a country other than Singapore giving effect to the Convention, being a provision that is applicable in relation to a ship other than a Singapore ship, has been complied with in respect of that ship. 337 The Director or Port Master may deny a ship's entry to the port if he has reasonable cause to believe that a ship does not comply with the requirements of this Act. 338 On the other hand, the Director or Port Master or any authorised officer 339 may detain that ship if he has reasonable cause to believe that a ship has incurred a liability under section 17 or 18; or has contravened any of the requirements of this Act or any regulations made thereunder and, in the opinion of the Director or Port Master, the ship presents an unreasonable threat of harm to the marine environment or has caused harm to such environment. Section 26 states that the PPSA 1990 shall not apply to any warship, naval auxiliary or other ship owned or operated by a State (including the Government) and used for the time being, only on government non- commercial service. This provision follows Article 3(3) of the MARPOL Convention. 5.6.6

2 Hazardous Waste (Control of Export, Import And Transit) Act (Chapter 122A) 13 of 1997, 1998 Revised Edition,

9 of 2003 Singapore enacted the Hazardous Waste (Control of Export, Import and Transit) Act in November 1997 and its regulations entered into force in May 1998. The Act and its regulations enable Singapore to fulfil the obligations of the Basel Convention. It is modelled on the Commonwealth of Australia Hazardous Waste (Regulation of Exports and Imports) Act 1989. 340 This Act is an Act to provide for the regulation of the export, import and transit of hazardous and other wastes, and for related purposes. Hazardous Waste Act 1997 consists of 6 Parts and 14 Sections, Part 1 deals with Preliminary aspects, Part II provides for Administration, Part III covers Import, Export and Transit permits,

2 Part IV handles Regulation of Import, Export and Transit of Hazardous And Other Wastes,

Part V deals with Enforcement and Part VI consists of Miscellaneous provisions. Section 2 defines "Basel export permit" as

2a permit given in accordance with the Basel Convention permitting the

338 Section 23 (1) of 1990 PPSA. 339 An officer authorised in writing by the Director or Port Master. 340 Section of Environment, Energy, and Resources International Environmental Law Committee, Lye, Lin Heng, "Environmental Pollution Laws in Singapore" 21 February 2010 <http://www.abanet.org/enviro/committees/intenviron/newsletter/feb03/singapore/>.

2 export of hazardous or other waste;"Basel import permit" as a permit given in accordance with the Basel Convention permitting the import of hazardous or other waste;"Basel permit" as a Basel export permit, a Basel import permit or a Basel transit permit;"Basel transit permit" as a permit given in accordance with the Basel Convention permitting the carrying out of one or more transit proposals relating to hazardous or other waste;

"Director"

2 means that the Director of Hazardous Waste appointed under section 15 and includes the Deputy Director and Assistant Directors of Hazardous Waste

"Singapore waters" as

2a) the whole water of the sea within the seaward limits of the territorial waters of Singapore; and b) all other waters (including inland waters) which are within these limits and are subject to the ebb and flow of the ordinary tides;

"Export proposal"

2 means as a proposal to export hazardous or other waste and to deal with it outside Singapore;"holder" means in relation to a Basel permit or a special permit,

the person to whom the permit is granted; "import permit"

2 means a Basel import permit or a special import permit,"import proposal" means a proposal to import hazardous or other waste and deal with it in Singapore,

"special export permit"

2 means a permit under a set of Article 11 regulations permitting the export

of hazardous or other waste;"special import permit" means a permit under a set of Article 11 regulations permitting the import of hazardous or other waste;"special permit" means a permit under a

set of Article 11 regulations permitting the carrying out of one or more transit proposals relating to hazardous or other waste; "transit permit" means a Basel transit permit or a special transit permit. Hazardous Waste is categorised as waste prescribed

2under this Act, where the waste has any of the characteristics mentioned in Annex III to the Basel Convention or waste that belongs to any category in Annex I to the Basel Convention,

2but hazardous and other wastes do not include wastes derived from the normal operations of a ship and radioactive wastes

341 . The Ministry of Environment may make regulations to the

2Basel Convention and amendment or protocol to the Basel Convention

342 . The

2Minister shall appoint a Director of Hazardous Waste

343 , under the Pollution Control Department of the National Environment Agency. The exporter needs to obtain a Basel export permit from the Director of Pollution Control Department prior to the export of hazardous waste 344 . The importer needs to obtain a Basel import permit from the Director of Pollution Control Department prior to the import of hazardous waste. 345 Singapore restricts the transit of hazardous wastes and other wastes. A

2person shall not import hazardous waste unless- a) the person is the holder of an import permit authorising the person to import the waste; b) the import is authorised by an order made under any regulation made under Part III, or c) the import has been ordered under any regulation made under Part III.

Anyone who contravenes this law will be guilty of an offence and liable to a fine not exceeding \$100,000 or to imprisonment for a term not exceeding 2 years or to both. On the other hand, in the case of a body corporate, to a fine not exceeding \$300,000. 341 Section 4 of 1998 Hazardous Waste Act. 342 Section 17 of 1998 Hazardous Waste Act. 343 Section 15of 1998 Hazardous Waste Act. 344 Section 18 of 1998

2Hazardous Waste (Control of Export, Import And Transit) Act. 345 Ibid. A
person shall **not**

export hazardous waste unless- a) the person is the holder of an export permit authorising the person to export the waste; or b) the export has been ordered under any regulation made under Part III. Anyone who contravenes this law will be guilty of an offence and liable to a fine not exceeding \$100,000 or to imprisonment for a term not exceeding two (2) years or to both. On the other hand, in the case of a body corporate, to a fine not exceeding \$300,000.

5.6.7 Dangerous Goods Merchant Shipping (Safety Convention) Regulations Chapter VII of the International Convention for the Safety of Life at Sea 1974 lays down regulations to be adopted concerning the carriage of dangerous goods in all ships to which the convention applies. 346 In Singapore, the provisions of Chapter VII have been implemented by the Merchant Shipping (Safety Convention) Regulations, Chapter 179, Regulation 11 of the 1990 Ed of Subsidiary Legislation, made pursuant to section 143 of the Merchant Shipping Act (Chapter 179, 1985 Revised Edition). 347 Except for the ship's stores and equipment, Chapter VII applies to dangerous goods classified under regulation 2 which are carried in packaged form or in solid form in bulk in all ships to which the regulations apply and in cargo ships of less than 500 tonnes. 348 "Dangerous goods" is defined in the Regulations as goods classified in the IMDG Code or in any other IMO publication. 349 Regulation 54 of Chapter II – 2 of the Merchant Shipping (Safety Convention) Regulations provides 346 Charles Lim, Aeng Cheng, Environmental Protection Of The Seas In Singapore, (1994) Singapore Journal of Legal Studies 52-90. 347 Ibid. 348 Ibid. 349 Ibid. for special requirements for passenger ships and ships of 500 tons or over carrying dangerous goods. 350

5.6.8 The Maritime And Port Authority Of Singapore Act (Chapter 170A) 351 The Preamble to the Act states that it is an Act to establish and incorporate the Maritime and Port Authority of Singapore, to provide for its functions and powers, and for matters connected therewith. This Act consists of 120 sections and 16 Parts. The headings of the 16 Parts are; Part 1 - Preliminary, Part II – Establishment, Incorporation And Constitution of Authority, Part III – Functions, Duties and Powers of Authority, Part IV – Provisions Relating to Staff, Part V Financial Provisions, Part VI – Transfer of Assets, Liabilities and Employer, Part VII – Employment by Seamen, Part VIII – Regulation of Port, Part IX – Removal of Vessel and Aircraft Sunk and Other Obstruction, Part X – Pilotage, Part XI – Regulation and Control of Seaward Activities, Part XII – Licensing of Marine and Port Services and Facilities, Part XIII – Control of Relevant Public Licences, Part XIV – Liability of Authority, Part XV – Offences, Part XVI – Miscellaneous Provisions. There are three (3) Schedules to this Act, where the First schedule deals with Constitution and Proceedings of Authority, the Second Schedule provides for Powers of Authority and the Third Schedule deals with Financial Provisions. "Authority" means the Maritime and Port Authority of Singapore 1997 established under section 4, "dangerous cargoes" means such cargoes, whether packaged, carried in bulk packagings or in bulk, as may be prescribed; "Director of Marine" means the Director of Marine appointed under section 4 of the Merchant Shipping Act, "goods" means dangerous cargoes, animals, carcasses, baggage, 350 Charles Lim, Aeng Cheng, Environmental Protection Of The Seas In Singapore, (1994) Singapore Journal of Legal Studies 52- 90. 351 Maritime and Port Authority of Singapore Act (Chapter 170A) 30 TH May 1997, Revised Edition 1997, Amended by Act 7 of 1996, 5 of 2002, 45 of 2004. containers and any other movable property of any kind whatsoever and whether in a refrigerated form or otherwise, "Port Master" means the Port Master appointed under Section 15 and includes any Deputy Port Master appointed under that section, "pilot" means any person not belonging to a vessel who has the conduct thereof. Among the functions and duties of the Authority are 352 : a. to regulate and control navigation within the limits of the port and the approaches to the port; and b. to exercise regulatory functions in respect of merchant shipping and particularly in respect of safety at sea, the manning of vessels and the prevention of pollution at sea. The most relevant provisions are found in Part VIII regarding Regulation of Port. The Authority can make regulations for the control and management of the port as follows 353 : a) the conduct of inquiries into any case where damage has been caused to or by a vessel; b) the information to be supplied by the masters, owners, agents and other persons in respect of vessels arriving and departing and the time and manner in which such information shall be supplied; c) prescribing the standards of competence to be attained by officers and crew of harbour craft in order to be qualified for the purposes of manning harbour craft and providing for the conduct of any examinations, the conditions for admission to them and the issue, form and recording of licences or certificates and other documents; 352 Section 7 of 1997 Maritime and Port Authority of Singapore Act. 353 Section 41 of 1997 Maritime and Port Authority of Singapore Act. d) regulating the navigation and place of anchoring or mooring of vessels carrying dangerous cargoes; e) regulating the mode of utilizing, stowing and keeping dangerous cargoes on board vessels and

the conveyance within the port of any kind of dangerous cargoes with any other kind of goods, articles or substances. Anyone who contravenes this law will be guilty of an offence and liable to a fine not exceeding \$20,000 or to imprisonment for a term not exceeding six (6) months or to both and in the case of a continuing offence, a further fine not exceeding \$2,000 for everyday for such continuing offences. Any person is required by this Act to take out and maintain a policy of insurance against liability for any risks or costs, such policy of insurance shall be 354 ; a) a policy of insurance that is issued by an insurer who at the time the policy is issued and during the period of insurance is lawfully carrying on insurance business in Singapore, and b) in accordance with such terms and conditions, including any minimum limit of indemnity. Among the powers of the Port Master 355 in relation to vessels the most significant are 356 ; a) to direct the removal of any vessel from any place in the territorial waters of Singapore to any other place in the territorial waters of Singapore and the time within which such removal is to be effected in the territorial waters of Singapore; 354 Section 42 of 1997 Maritime and Port Authority of Singapore Act. 355 The Authority shall appoint a Port Master and Deputy Port Master; section 15 of the 1997 Maritime and Port Authority of Singapore Act. 356 Section 43 of the 1997 Maritime and Port Authority of Singapore Act. b) to regulate, restrict or prohibit the movement of vessels in the port and the approaches to the port. The Port Master may direct the owner, agent or master of any vessel intending to enter or leave the port to furnish information 357 relating to the vessels and cargo before entering or leaving the port. The owner, agent or master of any vessel who fails to comply shall be guilty of an offence and liable to a fine not exceeding \$10,000. Section 45 states the owner or master of any vessel which is in transit in the port to provide him with such particulars of the vessel. Any owner or master of a vessel who fails to comply shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000. No vessel shall leave the port without the owner, agent or master obtaining port clearance 358 from the Port Master. No port clearance shall be granted to any vessel 359 ; a) whose owner, agent or master has not complied with the Regulation of Imports and Exports Act, or any other written law relating to the import or export of goods into or from Singapore; or b) until the owner, agent or master of vessel has declared to the Port Master the name of the country to which he claims that the vessel belongs to and the certificate of registry of the vessel. The Port Master may prohibit any vessel from entering the territorial waters of Singapore 360 and may direct any vessel to leave the territorial waters of Singapore if 357 The information required by the Port Master are a general declaration of arrival in such forms as the Port Master may determine, the clearance from the last port, a list of passengers on board, a list of crew, a copy of the manifest of goods to be discharged or transhipped in the port and such other document as may be required by the Port Master, section 44 (2) b of 1997 Maritime and Port Authority of Singapore Act. 358 Port clearance determines a general declaration of departure in such form as the Port Master may determine, a list of crew, a list of passengers on board, a copy of the manifest of goods on board and cargo loaded on or discharged at the port and such other documents as may be required by the Port Master from time to time. Section 46 (2) of the 1997 Maritime and Port Authority of Singapore Act. 359 Section 46 (5) of the 1997 Maritime and Port Authority of Singapore Act. 360 Section 48 of the 1997 Maritime and Port Authority of Singapore Act. he is of opinion that it would be in the public interest for the vessel to remain within the territorial waters of Singapore. 361 Part IX of the Maritime and Port Authority of Singapore Act 1997 consists of provisions on Removal of Vessel And Aircraft Sunk And Other Obstruction. The Authority has the power to raise, remove or destroy any vessel, aircraft or other obstruction that would threaten the navigation or the safe operation of the port. Any person who fails to comply with a notice shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000 and for a continuing offence to a further fine not exceeding \$2,000 for everyday during which the non-compliance notice is issued. Part X of the Maritime And Port Authority of Singapore Act 1997 consists of provisions on Pilotage. Section 59 states that the Authority may declare any area in the port to be a pilotage district. Every vessel while navigating in any pilotage district may require the vessel to be under pilotage. 362 Failure to employ an authorised pilot as required by the Authority is an offence and such non-compliance by the vessel shall be liable on conviction to a fine not exceeding \$5,000 and to pay to the Authority double the amount of pilotage dues and rates. 363 5.7 MODEL NATIONAL LAW ON HNS AND HAZARDOUS WASTE SHIPMENTS THROUGH THE STRAITS OF MALACCA A model national law should be based on conventions, treaties and protocols that have been ratified and should be ratified as follows: 361 Section 49 of 1997 Maritime and Port Authority of Singapore Act. 362 Section 60 of 1997 Maritime and Port Authority of Singapore Act. 363 Section 61 of 1997 Maritime and Port Authority of

Singapore Act. 1) An environmental principle which is holistic and precautionary in nature for the sustainable development of the waterway through which the transit passage of HNS and hazardous waste shipments are made. 2) Ratification of the HNS shipment conventions [refer eighteen (18) HNS Conventions in Chapter Three (3)] in particular the liability and compensation provisions– of the 2010 HNS Convention Protocol to the 1996 HNS Convention. 3) Ratification of Hazardous Waste Conventions, namely the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal; the 1998 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, (PIC); and the 2001 Stockholm Convention on Persistent Organic Pollutants, (POPs). 4) Ratification of MARPOL 73/78 Annex III. 5.7.1 IMPLEMENTATION OF MODEL NATIONAL LAW: 1) It is vital to adopt an environmental principle which is holistic and precautionary in nature for the sustainable development of the waterway through which the transit passage of HNS and hazardous waste shipments are made. According to George, the sustainable approach has to be based on preventive, precautionary, anticipatory and holistic principles. 364 The government has to conduct an Environmental Impact Assessment, a Social and Strategic Assessment for sustainable management in the transit passage. 365 The sustainable development and preventive principles are recognized under the Eighth, Ninth and Tenth Malaysia Plans. Due diligence in a precautionary world means that international 364 Sy Ahmad, Sharifah Suhanah, "Developments in Malaysian Law Selected Essays" (Kuala Lumpur:Fakulti Undang-Undang UKM, 2007) at 131. law standards as a collective have to be adopted. 366 It is a series of continuous steps taken to ensure that minimal damage occurs to the environment. In this sense, the environment must be in a continuous state of improvement. 367 2) Implementation of the 2010 HNS Convention Protocol to the 1996 HNS Convention (refer Chapter Three). Administrative Structure Malaysia response action units are to be located at all three major ports of Malaysia namely Klang, Johore and Pinang. The units to work with are the MMEAA, the Marine Department and the Department of Environment. Indonesia response action units are to be located at major ports of Indonesia namely Sabang, Malahayati, Lhokseumawae, Langsa, Tebing Tinggi, Belawan and UTPK, Kuala Tanjung, Tanjungbalai, Bagansiapiapi, Melaka, Dumai and Bengkalis. The roles of chemical scientists, equipment, custom clearance and chemical scientists from the three strait states will have to work together. They will need equipment and custom clearance from their respective states to handle and manage the HNS spill. 3 (i)Hazardous Waste/1989 Basel Convention- Based on the 1989 Basel Convention the model law should contain provisions on Definitions of Hazardous Wastes. The model law should have the list of domestically prohibited goods. The need for the model law to have the Competent Authorities, Focal Points, Notification Procedures for Transboundary Movements of Hazardous Wastes between Parties and Transmission of Information, Further provisions are required to have Cooperation, Bilateral, Regional and Multilateral Agreements or Arrangements. Besides those Liabilities, Compensation and 366 Ibid. 367 Ibid. Revolving Fund are required for the 1989 Basel Convention. "Waste" under the 1989 Basel Convention means

2 substances or objects which are disposed of or are intended to be disposed of

by the provisions of national law, nevertheless "wastes" that are excluded from the Basel Convention are radioactive wastes and waste derived from normal operations of a ship. The list of Wastes under Basel Convention but not exhaustive: Metal Carbonyls,

2 Beryllium; Beryllium Compounds, Hexavalent Chromium Compounds, Copper Compounds, Zinc Compounds, Arsenic; Arsenic Compounds and Selenium; Selenium Compounds.

The 1989 Basel Convention provides for the attainment of its objectives through control of the transboundary movements of hazardous wastes, monitoring and prevention of illegal traffic, assistance

2for the environmentally sound management of hazardous wastes,

promotion of cooperation between parties in this field, and development of technical guidelines for the management of hazardous wastes. The important remarks of the 1989 Basel Convention: 368 a) transboundary movement and management of hazardous and other wastes: the overall goal of the Basel Convention is to protect, by strictly control, human health and the environment against the adverse effects which may result from the generation, transboundary movement and management of hazardous and other wastes; b) reducing transboundary movement of wastes and controlling permitted transboundary movement: further objectives include: reducing transboundary movements of wastes to a minimum consistent with their environmentally sound management and efficient management, and controlling any permitted transboundary movement under the terms of the convention; minimizing the amount of hazardous wastes generated and ensuring their environmentally sound 368 Ibid. management; assisting developing countries in environmentally sound management of the hazardous and other wastes they generate; c) managing the disposal of hazardous wastes: in summary, the aim of the Basel Convention is to help reduce the transboundary movements and amounts of hazardous wastes to a minimum, and to manage and dispose of these wastes in an environmentally sound manner; d) strict control system based on the prior written consent procedure: the Basel Convention has set up a very strict control system, based on the prior written consent procedure. Hazardous wastes shall be export only if the

2State of export does not have the technical capacity and facilities

to dispose of them in environmentally sound management. Transboundary movement shall be prohibited if the State of export or import has

2reason to believe that the wastes shall not be managed in expected manner.

The Department of Environment is the

Competent Authority in the Implementation of the Basel Convention in Malaysia. 3 (ii) Hazardous Waste/The 1998 Rotterdam Convention. The objective of agreement is to promote shared responsibility and cooperative efforts among parties in the international trade of certain hazardous chemicals

2in order to protect human health and environment

from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to parties. Prior Informed Consent procedure (PIC) required exporters trading in a list of hazardous substances to obtain the prior informed consent of importers before proceeding with the trade. The Convention establishes a first line of defence by giving importing countries the tools and information they need to identify potential hazards and exclude chemicals they cannot manage safely. Examples of the chemicals are Monocrotophos and Methamidophos. The Department of Agriculture is the Competent Authority in the Implementation of the Basel Convention in Malaysia. 3(iii) THE 2001 STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANT The 2001 Stockholm Convention is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty issue of humans and wildlife, and have adverse effects to human health or to the environment. It recognises that a special effort may sometimes be needed to phase out certain chemicals for certain uses and seeks to ensure that this effort is made. The Stockholm is perhaps best understood as having five essential aims;

eliminate dangerous POPs, starting with the 12 worst, support the transition to safer alternatives, target additional POPs for action, clean-up old stockpiles and equipment containing POPs, work together for a POPs free future. The list of POPs, but not exhaustive: Aldrin, Chlordane, DDT, Dieldrin, Dioxins, Endrin, Furans, Heptachlor, Hexachlorobenzene, Minex, Polychlorinated, Biphenyls (PCB) and Toxaphene. 3) The MARPOL 73/78 Annex III MARPOL 73/78 is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. Annex III of the MARPOL 73/78 Convention comprises regulations aiming at the prevention of pollution of harmful substances transported in packed form, like packages, freight containers, portable tanks or tanks for rail or road transport. 369 The Annex also comprises general requirements to issue detailed regulations regarding packing, labelling, documentation, stowage, limits on size, etc to satisfy and to satisfy demands on safety and to reduce the risks of pollution by noxious substances. 370 To facilitate for the accession the International Maritime Dangerous Goods Code has also amended to include marine pollutants. 371 Annex III is optional so that States who sign up to MARPOL 73/78 Annexes I and II are not required adopting the Annex at the same time. 372 Annex III received sufficient ratifications by 1991 and entered into force on 1 July 1992. 373

5.8 COMMON ANALYSIS

A common analysis of the provisions of the domestic laws of Malaysia, Indonesia and Singapore pertaining to HNS liability and compensation, shows that the related provisions are not available as the three strait states are not a party to the 1996 HNS Convention or the 2000 OPRC-HNS Protocol though Singapore has ratified the 2000 OPR-HNS Protocol. Currently, no HNS cases are reported within the jurisdictions of Malaysia, Indonesia and Singapore. This is due to the non-existence of liability and compensation on HNS pollution and the inadequacy of HNS containment in the Straits of Malacca. In other words, a HNS ship owner or HNS cargo owner has no obligation to compensate or clean up the HNS spillage should a HNS incident occurs. Under the regime of liability and compensation of HNS, the ship owner and cargo owner of HNS are liable 369 <http://www.portwaste.com/services/marpol.htm>, 24 September 2010, 11 pm. 370 Ibid. 371 Ibid. 372 <http://www.imo.org> 24 September 2010, 11 pm. 373 Ibid. to pay compensation arising from the HNS damage. Singapore has ratified the 2000 OPRC-HNS Protocol and this indicates that Singapore has set a good example for sub- regional cooperation for HNS marine pollution. However, although Singapore has ratified the 2000 OPRC-HNS Protocol the problem still occurs in seeking damages and compensation for HNS pollution as Singapore has yet to ratify the 1996 HNS Convention or its 2010 HNS Protocol. Malaysia and Indonesia must follow Singapore's example in installing the HNS contingency plans and ratify the 2000 OPRC-HNS Protocol and the 1996 HNS Convention or its 2010 HNS Protocol when the latter is open for ratification.

5.9 CONCLUSION

Pollution by HNS substances from vessels, whether intentional or accidental, or pollution involving any accidents between two or more ships or perhaps collision between ships having different regimes of liability and compensation will also cause difficulties for the claimant when involved with different liability and compensation regimes and detrimental effects to the marine environment and the ecosystem of a confined space of a busy strait such as the Straits of Malacca which is used for international navigation. This Chapter examined thirty two (32) domestic laws of Malaysia, Indonesia and Singapore which are related to HNS shipment. Though the Straits of Malacca is a strait used for international navigation, it is necessary for Malaysia to have the delimitation of the territorial sea in the Straits of Malacca for the benefit of state sovereignty and it is not adequate to apply the delimitation solely on the bilateral agreements entered into with neighbouring countries. Malaysia and Indonesia are required to regulate HNS shipping in the Straits of Malacca. There are several statutes related to HNS shipment in Malaysia, the 1969 Emergency (Essential Powers) Ordinance Number needs an overhaul since this Ordinance is mostly referred by many other statutes for example the 2006 Baselines of Maritime Zones Act, the 1974 Environmental Quality Act 1974, the 1984 Exclusive Economic Zone and others. As stressed by Amelia, the 1974 EQA and the 1952 MSO do not provide any discharge standard of environmentally hazardous pollutant by ships. The Malaysian statutes and liabilities under tort are inadequate to cater to the problems in getting the compensation for HNS incidents. Indonesia has statutes that regulate HNS shipment, and the effectiveness is hopefully better with the new 2009 Environmental Protection and Management Act. The important point about the Indonesian statutes related to HNS shipment is that no penalties are stipulated in those statutes but the penalties are referred solely in the 2009 Environmental Protection and Management Act. Perhaps the rationale to have penalties in the 2009 Environmental Act is to have comprehensive provisions in the new Act. Indonesia has implemented the 1982 LOSC through the Law Number 17 Year 1985 and the 1989 Basel Convention through the Order of the Head

for the Agency for Environmental Impact Control Number 1 Year 1995. "Prevention is better than cure" and with this measure, Singapore has committed to an effective, adequate and prompt response in order to combat the threat of marine or HNS pollution. Singapore has taken stringent measures in ratifying conventions related to HNS shipment. The related conventions have been implemented into her domestic laws. The Maritime and Port Authority of Singapore (MPA) as the national maritime authority has enforced the Prevention of Pollution of the Sea Act 1990 and Merchant Shipping (Civil Liability and Compensation for Oil Pollution) Act 1998. The enacted laws deal with the prohibition of marine pollution, taking preventive and remedial measures and applying strict liability for compensation. The laws also provide for detention, denial of entry and sale of offending ships. The legislations ensure that ships are designed, equipped, operated and managed to prevent pollution of the sea. Thus it can be concluded that the domestic laws of Malaysia, Indonesia and Singapore related to HNS shipment are in existence but the provisions in particular in Malaysia and Indonesia available are scattered and inadequate in terms of liability and compensation to be made available to the victims of HNS pollution. Finally, based on the research, a model national law on chemical and HNS waste shipments through the Straits of Malacca is proposed for Malaysia. 234 235 236 237 238 239 240 241 242 243 244 245 246 248 249 250 251 252 253 254 255 256 257 258 259 260 261 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 325 Section 31 of 1990 PPSA. 313 314 315 334 Section 19 of 1990 PPSA. 335 Section 2 of 1990 PPSA. 336 Section 22 (2) of 1990 PPSA. 316 337 Section 22 (1) of 1990 PPSA. 317 318 319 320 321 322 323 324 325 326 365 Ibid. 327 328 329 330 331 332 333 334 335