

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

THE FIRST SCHEDULE.

PORTS, VESSELS CHARGEABLE, RATE OF PORT-DUES AND FREQUENCY OF PAYMENT.

(See sections 1 and 33.)

PART I.—BENGAL.

Name of port. 1	Vessels chargeable. 2	Rate of port-dues. 3	Due how often chargeable in respect of same vessel. 4
Calcutta	Sea-going vessels of twenty tons and upwards. Tug-steamers and river-steamers.	Not exceeding four annas per ton: provided that in the case of dhonis and country vessels employed in the coasting trade, the rate shall be one-half the rate chargeable in respect of other vessels. Not exceeding four annas per ton.	Whenever the vessel enters the port except in the case of mail-steamers and coasting-vessels, which shall not be chargeable more than once in sixty days. Once between the 1st January and the 30th June, and once between the 1st July and the 31st December, in each year.
Cuttack Ports,—namely, False Point and Pooree.	Sea-going vessels of ten tons and upwards.	Not exceeding four annas per ton.	Whenever the vessel enters any one of the ports except in the case of mail-steamers and coasting-vessels, which shall not be chargeable more than once in sixty days.
Balasore Ports—namely, Balasore, Churaman, Laichhunpur, Chanua, Subarnarekha, Dharmra (Chandbally) and Sartha.	Ditto	Ditto	Whenever the vessel enters any one of the ports except in the case of mail-steamers and coasting-vessels, which shall not be chargeable more than once in thirty days.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART II.—MADRAS PRESIDENCY.

Name of port. 1	Vessels chargeable. 2	Rate of port-dues. 3	Due how often chargeable in respect of same vessel. 4
Madras	Sea-going vessels of fifteen tons and upwards.	<i>Foreign vessels.</i>	
		(a) In the case of a foreign ship or steamer, engaged in trade with the Straits Settlements or Ceylon calling at Madras, not exceeding four annas a ton.	The payment of the due at the port will exempt the ship or steamer for a period of sixty days from liability to pay the due again.
		(b) In the case of any other foreign ship or steamer calling at Madras, not exceeding four annas a ton.	The due is payable on each entry into the port.
		<i>Coasting vessels.</i>	
		(c) In the case of a coasting ship calling at Madras, not exceeding one and a half annas a ton.	The payment of the due at the port will exempt the ship for a period of sixty days from liability to pay the due again.
		(d) In the case of a coasting steamer calling at Madras, not exceeding three annas a ton.	The due is payable once in thirty days.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART II.—MADRAS PRESIDENCY—continued.

Name of port.		Vessels chargeable.	Rate of port-dues.	Due how often chargeable in respect of same vessel.			
1	2	3	4	5			
<i>Eastern Group.</i>							
Dis-trict.	Port.						
<i>Foreign Vessels.</i>							
Ganjam.	1. Gopalpur	Sea-going vessels of fifteen tons and upwards.					
	2. Baruva						
	3. Callinapatam						
Vizagapatam.	4. Bhillapatam						
	5. "						
Godavari.	6. Cocanada						
	7. Cotinga						
Elisna.	8. Narasapur						
	9. Perupalem						
Guntur.	10. Masulipatam						
	11. Nagayalanka						
	12. Kottapalem						
	13. Noyatala						
Nel-lore.	14. Gangadipalem						
	15. Nizampatnam						
	16. Ipurupalem						
	17. Motupalle						
Ching-leput.	18. Kottapatnam						
	19. Iskaalle						
South Arcot.	20. Covelong						
	21. Cuddalore						
	22. Porto Novo						
	23. ^a Thandavaraya-solaganpettai.						

^a For the omission of the port of Vizagapatam, see Fort St. George Gazette, 1925, Pt. I, p. 587.
^b The Act has been withdrawn from this port, see Fort St. George Gazette, 1900, Pt. I, p. 257.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART II.—MADRAS PRESIDENCY—continued.

Name of port.		Vessels chargeable.	Rate of port-dues.	Due how often chargeable in respect of same vessel.
1		2	3	4
<i>Eastern Group—contd.</i>				
Dist.	Port.			
<i>Foreign Vessels.</i>				
Tanjore.	24. Tirumalavasal 25. Tranquebar	Sea-going vessels of fifteen tons and upwards.	(a) In the case of a foreign ship or steamer, engaged in trade with the Straits Settlements, calling at any one port in the Eastern group, not exceeding three annas a ton.	The payment of the due at the port will exempt the ship or steamer for a period of sixty days from liability to pay the due again at that port.
	26. Nagore 27. Negapatam			
	28. Velankani			
	29. Toppalur 30. Point Callimere		(b) In the case of any other foreign ship or steamer calling at any one port in the Eastern group, not exceeding three annas a ton.	The due is payable on each entry into the port.
	31. Muttipet 32. Adirampatnam			
	33. Gopalapatnam 34. Kantunavadi 35. Krishnajiapatnam		(c) In the case of a foreign ship or steamer, engaged in trade with the Straits Settlements, calling at more than one port in the Eastern group, not exceeding four and a half annas a ton.	The payment of the due at the first port called at in the group will exempt the ship or steamer for a period of sixty days from liability to pay the due again at that or any other port in the group.
	36. Ammapatnam 37. Kottaiapatnam 38. Sundarapattinam			
	39. Vattanam 40. Tondi 41. Pudukpatnam 42. Karangadu		(d) In the case of any other foreign ship or steamer calling at more than one port in the Eastern group, not exceeding four and a half annas a ton.	The due is payable once for the voyage.
	43. Tirupalankudi 44. Devipatnam 45. Mudiyapatnam			
	46. Alagayankolam 47. Attankarai 48. Emaniangundu			
Madura.	49. Pamban			
	50. Ramesvaram 51. Mandapam 52. Vedalai		<i>Coasting Vessels.</i>	
	53. Muttipettai 54. Killakarai 55. Ervadi 56. Valinokkam	(e) In the case of a coasting ship calling at any port, not exceeding one and a half annas a ton.	The payment of the due at the port will exempt the ship for a period of sixty days from liability to pay the due again at that port.	
Tirunelveli.	57. Vembar 58. Vaippar		(f) In the case of a coasting steamer calling at one or more ports in the Eastern group, not exceeding three annas a ton.	The payment of the due at the first port called at in the group will exempt the steamer for a period of thirty days from liability to pay the due again at that or any other port in the group.
	59. Totticorin 60. Ovary 61. Kayalpatnam 62. Kulasckharapatnam			

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART II.—MADRAS PRESIDENCY—continued.

Name of port.		Vessels chargeable.	Rate of port-dues.	Due how often chargeable in respect of same vessel.
1	2	3	4	5
<i>Eastern Group—concl.</i>				
Dis-trict.	Port.			
	Vizagapatam .		<p><i>Foreign Vessels.</i></p> <p>(a) In the case of a foreign ship or steamer, engaged in trade with the Straits Settlements or Ceylon, calling at Vizagapatam, not exceeding four annas a ton.</p> <p>(b) In the case of any other foreign ship or steamer calling at Vizagapatam, not exceeding four annas a ton.</p> <p><i>Coasting Vessels.</i></p> <p>(c) In the case of a coasting ship calling at Vizagapatam, not exceeding two annas a ton.</p> <p>(d) In the case of a coasting steamer calling at Vizagapatam, not exceeding four annas a ton.</p>	<p>The payment of the due at the port will exempt the ship or steamer for a period of sixty days from liability to pay the due again.</p> <p>The due is payable on each entry into the port.</p>
	<i>Western Group.</i>		<p><i>Foreign Vessels.</i></p> <p>(a) In the case of a foreign ship or steamer, engaged in trade with the Straits Settlements, calling at any one port in the Western group, not exceeding three annas a ton.</p> <p>(b) In the case of any other foreign ship or steamer calling at any one port in the Western group, not exceeding three annas a ton.</p> <p>(c) In the case of a foreign ship or steamer, engaged in trade with the Straits Settlements, calling at more than one port in the Western group, not exceeding four and a half annas a ton.</p> <p>(d) In the case of any other foreign ship or steamer calling at more than one port in the Western group, not exceeding four and a half annas a ton.</p> <p><i>Coasting Vessels.</i></p> <p>(e) In the case of a coasting ship calling at any port, not exceeding one and a half annas a ton.</p> <p>(f) In the case of a coasting steamer calling at one or more ports in the Western group, not exceeding three annas a ton.</p>	<p>The payment of the due at the port will exempt the ship or steamer for a period of sixty days from liability to pay the due again at that port.</p> <p>The due is payable on each entry into the port.</p> <p>The payment of the due at the first port called at in the group will exempt the ship or steamer for a period of sixty days from liability to pay the due again at that or any other port in the group.</p> <p>The due is payable once for the voyage.</p> <p>The payment of the due at the port will exempt the ship for a period of sixty days from liability to pay the due again at that port.</p> <p>The payment of the due at the first port called at in the group will exempt the steamer for a period of thirty days from liability to pay the due again at that or any other port in the group.</p>
	63. Corulu .	Sea-going vessels of fifteen tons and upwards.		
	64. Chiyukkad .			
	{ 65. Vellangod .			
	{ 66. Ponnai .			
	{ 67. Kuttayi .			
	{ 68. Parapanna .			
	{ 69. Tanur .			
	{ 70. Parganangadi .			
	{ 71. Ferokeh .			
	{ 72. Bayporo .			
	{ 73. Calicut .			
	{ 74. Kappatta .			
	{ 75. Quilaudi .			
	{ 76. Kottakkal .			
	{ 77. Badagara .			
	{ 78. Muttankal .			
	{ 79. Chompayi .			
	{ 80. Kallayi .			
	{ 81. Talayi .			
	82. Tellicheer .			
	83. Cannanore .			
	{ 84. Pudiyangadi .			
	{ 85. Azhikal .			
	{ 86. Ettikulam .			
	{ 87. Kavyai .			

* For the insertion of this port, see Fort St. George Gazette, 1925, Pt. I, p. 587.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART II.—MADRAS PRESIDENCY—concluded.

Name of port.		Vessels chargeable.	Rate of port-dues.	Due how often chargeable in respect of same vessel.
1		2	3	4
Western Group—contd.				
Dis-trict.	Port.			
South Canara.	{ 88. Hoadrug 89. Baskal 90. Kasaragod 91. Kumbale 92. Manjesvara 93. Mangalore 94. Mulki 95. Padubidri 96. Ernala 97. Uchhila 98. Kashi 99. Malpe 100. Mangarakatta or Barkur. 101. Coondapoor 102. Nyaklakatto (Nyaklakattal). 103. Daludur 104. Siruru	Sea-going vessels of fifteen tons and upwards.	Foreign Vessels.	
		(a) In the case of a foreign ship or steamer, engaged in trade with the Straits Settlements, calling at any one port in the Western group, not exceeding three annas a ton.	The payment of the due at the port will exempt the ship or steamer for a period of sixty days from liability to pay the due again at that port.	
		(b) In the case of any other foreign ship or steamer calling at any one port in the Western group, not exceeding three annas a ton.	The due is payable on each entry into the port.	
		(c) In the case of a foreign ship or steamer, engaged in trade with the Straits Settlements, calling at more than one port in the Western group, not exceeding four and a half annas a ton.	The payment of the due at the first port called at in the group will exempt the ship or steamer for a period of sixty days from liability to pay the due again at that or any other port in the group.	
		(d) In the case of any other foreign ship or steamer calling at more than one port in the Western group, not exceeding four and a half annas a ton.	The due is payable once for the voyage.	
		Coasting Vessels.		
		(e) In the case of a coasting ship calling at any port, not exceeding one and a half annas a ton.	The payment of the due at the port will exempt the ship for a period of sixty days from liability to pay the due again at that port.	
		(f) In the case of a coasting steamer calling at one or more ports in the Western group, not exceeding three annas a ton.	The payment of the due at the first port called at in the group will exempt the steamer for a period of thirty days from liability to pay the due again at that or any other port in the group.	

Explanations to Part II of the First Schedule.

Explanation 1.—In this Part of the schedule—

- (a) "ship" means a vessel propelled solely by wind power and "steamer" any vessel other than a ship;
- (b) "coasting ship" or "coasting steamer" means respectively a ship or steamer which at any port discharges cargo exclusively from, or takes in cargo exclusively for, any port in the island of Ceylon or any part of India, between the western most part of Sind and the south-easternmost part of Burma; and "coasting steamer" includes a coasting steam-vessel having a general pass under section 161 of the Sea Customs Act, 1878;
- (c) "foreign ship" or "foreign steamer" means respectively a ship or steamer not being a coasting ship or coasting steamer;

Provided that, for the purpose of the levy of port-dues, a vessel shall not be deemed, during one and the same voyage, to be both a coasting ship or steamer and a foreign ship or steamer, but port-dues shall, in respect of such voyage, be leviable on such vessel either as a coasting or as a foreign ship or steamer, whichever rate is the higher.

Explanation 2.—Ports enclosed in double brackets in the first column of the schedule shall be treated as if they were only one port; every vessel in respect of which such dues have been charged and taken at one of the bracketed ports being exempted from the payment of port-dues on entering another port bracketted with it within the period specified in the fourth column of the schedule.

¹ This definition was substituted by Mad. Act I of 1926.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART III.—BOMBAY PRESIDENCY.

Name of port. 1	Vessels chargeable. 2	Rate of port-dues. 3	Due how often chargeable in respect of same vessel. 4
Bombay	Sea-going vessels of ten tons and upwards (except fishing-boats).	Not exceeding four annas per ton.	Once in the same month.
	Tug-steamers, ferry-steamers and river-steamers.	Ditto	Once between the 1st January and the 30th June, and once between the 1st July and 31st December, in each year.
<i>Northern Group of Ports—</i>			
1. Goge 2. Dholerá (Whittle Bandar). 3. Tankári 4. Dehegám 5. Kavi 6. Dehej 7. Brosch 8. Bhagvá 9. Surat 10. Matwád 11. Balsár 12. Umarsádi 13. Kolak 14. Kalá 15. Maroll 16. Umbargam 17. Gholwad 18. Dahánu Creek 19. Tárápur 20. Olivára Navápur 21. Sápáti Creek 22. Máhim (Kelva) 23. Kelva 24. Dantiora 25. Arnála	Sea-going vessels of ten tons and upwards (except fishing-boats).	Not exceeding three annas per ton; provided that a coasting steamer whenever it enters any port may be charged at a rate to be determined by the Local Government and not exceeding the highest rate of port-dues leviable at any port of the group to which such port belongs and an addition of one-half of such highest rate.	Once in thirty days at the same port; provided that no coasting vessel or coasting steamer, having paid port-dues at any port, shall be chargeable with port-dues again at the same or any other port of the same group within thirty days.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART III.—BOMBAY PRESIDENCY—continued.

Name of port. 1	Vessels chargeable. 2	Rate of port-dues. 3	Due how often chargeable in respect of same vessel. 4
<i>Southern Group of Ports—</i>			
1. Bāndra . . . 2. Vesāva . . . 3. Manori . . . 4. Utan . . . 5. Bassein . . . 6. Bhiwadi . . . 7. Kalyan . . . 8. Thāna . . . 9. Mahul . . . 10. Trombay . . . 11. Panvel . . . 12. Mora . . . 13. Karanja . . . 14. Thal . . . 15. Alibāg . . . 16. Revdanda . . . 17. Mandad . . . 18. Bankot . . . 19. Kolshi . . . 20. Harnai . . . 21. Dabhoi . . . 22. Dorya . . . 23. Jaygd . . . 24. Varavda . . . 25. Ratnagiri . . . 26. Purangad . . . 27. Jaytapur . . . 28. Vijaydurg . . . 29. Devgad . . . 30. Achra . . . 31. Mālwan . . . 32. Nivti . . . 33. Vengurla . . . 34. Redi . . . 35. Kirnapani . . . 36. Tilmati . . . 37. Sadashivgad . . . 38. Karwar, including Baitkhol. 39. Bingi . . . 40. Chendya . . . 41. Belikeri . . . 42. Ankolā . . . 43. Gangāvali . . .	Sea-going vessels of ten tons and upwards (except fishing-boats).	Not exceeding three annas per ton: provided that a coasting steamer whenever it enters any port may be charged at a rate to be determined by the Local Government and not exceeding the highest rate of port-dues leviable at any port of the group to which such port belongs, and an addition of one-half of such highest rate.	Once in thirty days at the same port: provided that no coasting vessel or coasting steamer, having paid port-dues at any port, shall be chargeable with port-dues again at the same or any other port of the same group within thirty days.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART III.—BOMBAY PRESIDENCY—concluded.

Name of port. 1	Vessels chargeable. 2	Rate of port-dues, 3	Due how often chargeable in respect of same vessel. 4
<i>Southern Group of Ports—contd.</i>			
44. Tadri . . . 45. Kumpta . . . 46. Honawar . . . 47. Manki . . . 48. Murdeshwar . . . 49. Shirali . . . 50. Bhatkal . . .	} Sea-going vessels of ten tons and upwards (except fishing-boats).	Not exceeding three annas per ton: provided that a coasting steamer whenever it enters any port may be charged at a rate to be determined by the Local Government and not exceeding the highest rate of port-dues leviable at any port of the group to which such port belongs, and an addition of one-half of such highest rate.	Once in thirty days at the same port: provided that no coasting vessel or coasting steamer, having paid port-dues at any port, shall be chargeable with port-dues again at the same or any other port of the same group within thirty days.
Karachi . . .	Sea-going vessels of ten tons and upwards (except fishing-boats). Tug-steamers and river-steamers.	Not exceeding four annas per ton. Ditto	Once in three months. Once between the 1st January and the 30th June, and once between the 1st July and the 31st December, in each year.
Aden . . .	Sea-going vessels of ten tons and upwards.	Not exceeding three annas per ton.	Once a month.

of 1908.]

Indian Ports.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment.)

PART IV.—BURMA.

Name of port. 1	Vessels chargeable: 2	Rate of port-dues. 3	Dues how often chargeable in respect of same vessel. 4
Rangoon	Sea-going vessels of ten tons and upwards.	Not exceeding six annas per ton.	Once in sixty days.
	Tug-steamers and river-steamers.	Not exceeding four annas per ton.	Once between the 1st January and the 30th June, and once between the 1st July and the 31st December, in each year.
Moulmein	Sea-going vessels of ten tons and upwards, but less than twenty-five tons.	Ditto	Once in sixty days.
	Sea-going vessels of twenty-five tons and upwards.	Not exceeding five annas six pies per ton.	Ditto.
Kyaukpyu	Sea-going vessels of ten tons and upwards.	Not exceeding four annas per ton.	Ditto.
Akyab	Ditto	Ditto	Ditto.
Bassoa	Sea-going vessels of ten tons and upwards, but less than twenty-five tons.	Ditto	Ditto.
	Sea-going vessels of twenty-five tons and upwards.	Not exceeding five annas six pies per ton.	Ditto.
Tavoy	Sea-going vessels of ten tons and upwards.	Not exceeding four annas per ton.	Ditto.
Mergui	Ditto	Ditto	Ditto.

(The First Schedule.—Ports, Vessels chargeable, Rate of Port-dues and Frequency of Payment. The Second Schedule.—Enactments repealed.)

PART V.—EASTERN BENGAL AND ASSAM.

Name of port.	Vessels chargeable.	Rate of port-dues.	Duo how often chargeable in respect of same vessel.
1	2	3	4
Chittagong	Sea-going vessels of ten tons and upwards, not being ballam-boats.	Not exceeding four and a half annas per ton.	Whenever the vessel enters the port, except in the case of mail-steamers and coasting vessels, which shall not be chargeable more than once in sixty days.
	Tug-steamers and river-steamers.	Ditto	Once between the 1st January and the 30th June, and once between the 1st July and the 31st December, in each year.
	Ballam-boats	Not exceeding one anna per ton.	Whenever the vessel enters the port.

THE SECOND SCHEDULE.

ENACTMENTS REPEALED.

(See section 69.)

Year.	No.	Short title or subject.	Extent of repeal.
1889	X	The Indian Ports Act, 1889	So much as is unrepealed.
1891	V	The Indian Ports Act, 1891	The whole.
894	II	The Indian Ports Act (1889) Amendment Act, 1894.	Ditto.
1896	IV	The Indian Ports Act (1889) Amendment Act, 1896.	Ditto.
1901	III	The Indian Ports Act, 1901	Ditto.
1903	V	The Indian Ports (Amendment) Act, 1903.	Ditto.

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EXTRAORDINARY
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PART I

Acts, Ordinances, President's Orders and Regulations including Martial Law
Orders and Regulations

GOVERNMENT OF PAKISTAN

MINISTRY OF LAW AND PARLIAMENTARY AFFAIRS
(Law Division)

Islamabad, the 31st December, 1983

No. F. 17 (1)/83-Pub.—The following Ordinance made by the President is hereby published for general information:

ORDINANCE No. XXXVII of 1983

AN

ORDINANCE

to provide for the control of pollution and preservation of living environment

WHEREAS it is expedient to provide for the control of pollution and preservation of living environment and for matters connected therewith or ancillary thereto:

AND WHEREAS the President is satisfied that circumstances exist which render it necessary to take immediate action:

NOW, THEREFORE, in pursuance of the Proclamation of the fifth day of July, 1977, and in exercise of all powers enabling him in that behalf, the President is pleased to make and promulgate the following Ordinance:—

1. Short title, extent and commencement.—(1) This Ordinance may be called the Pakistan Environmental Protection Ordinance, 1983.

(2) It extends to the whole of Pakistan and its territorial waters, Exclusive Economic Zone and historic waters.

(245)

Price: Ps. 60

[4757 Ex. Gaz.]

(3) It shall come into force on such day as the Federal Government may, by notification in the official Gazette, specify in this behalf.

2. Definitions.- In this Ordinance, unless there is anything repugnant in the subject or context,—

- (a) "Agency" means the Pakistan Environmental Protection Agency (PEPA) established under section 5;
- (b) "Air pollutant" means any substance that causes alteration in chemical, physical, biological or radiological integrity of air and includes soot, smoke particulates, combustion exhaust, exhaust gases, obnoxious gases and radioactive substances;
- (c) "Council" means the Pakistan Environmental Protection Council established under section 3;
- (d) "discharge" means spilling, leaking, pumping, pouring, emitting, emptying or dumping;
- (e) "effluent" includes any material in solid, slurry, suspension, liquid, vapour, fumes or gaseous form coming out as or from any industrial activity or any other source;
- (f) "effluent standards" means the permissible limits prescribed by the Agency regarding the quality and quantity of effluents and wastes;
- (g) "emission standards" means the permissible standards for emission of air pollutants prescribed by the Agency;
- (h) "Exclusive Economic Zone" shall have the same meaning as in the Territorial Waters and Maritime Zones Act, 1976 (LXXXII of 1976);
- (i) "Government agency" includes a division, department, bureau, section, commission, board, office or unit of the Federal Government or a Provincial Government;
- (j) "historic waters" means such limits of the waters adjacent to the land territory of Pakistan as are for the time being specified by notification under section 7 of the Territorial Waters and Maritime Zones Act, 1976 (LXXXII of 1976);
- (k) "industrial activity" means any process for manufacturing, making, altering, repairing, ornamenting, finishing, packing or otherwise treating any article or substance with a view to its use, sale, transport, delivery or disposal or for pumping oil, water or sewage or for generating, transforming or transmitting power;
- (l) "industrial waste" means waste resulting from an industrial activity;
- (m) "local authority" includes any agency set up or designated by the Federal Government or a Provincial Government to be a local authority for the purposes of this Ordinance;
- (n) "local council" means a local council constituted or established under a law relating to local government;
- (o) "municipal waste" includes sewage, refuse sludge and human excreta and the like;
- (p) "pollution" means any matter which, on being discharged into the air, soil or public waters, alters unfavourably the chemical, physical, biological or radiological integrity of the air, soil or public waters

or, by itself or in combination with other discharges, is likely to make the air, soil or public waters unclean, noxious or impure or injurious or disagreeable or detrimental to the health, safety, welfare or property of persons or harmful to aquatic life, animals, birds, fish, plants or other forms of life :

- (q) "prescribed" means prescribed by rules or regulations ;
- (r) "public waters" means water areas in public use and includes streams, nullahs, canals, seepage drains, natural or artificial water courses, rivers, wells, ponds, ditches, lakes reservoirs, underground or artesian water, territorial waters, the Exclusive Economic Zone and historic waters ;
- (s) "regulations" means regulations made under this Ordinance ;
- (t) "rules" means rules made under this Ordinance ;
- (u) "sewage" means liquid wastes from sanitary conveniences, kitchens, laundries, washing and the like ;
- (v) "standards" means effluent standards and emission standards ;
- (w) "territorial waters" shall have the same meaning as in the Territorial Waters and Maritime Zones Act, 1976 (LXXXI of 1976) ;
- (x) "treatment works" means the various processes and devices used in the treatment of wastes ; and
- (y) "wastes" includes liquid wastes, suspended wastes, industrial wastes, municipal wastes, wastes from mining processes and wastes from farm and agricultural activities such as poultry, cattle, animal husbandry, abattoirs and the use of fertilizers and pesticides.

3. Establishment of the Council.--(1) The Federal Government shall, by notification in the official Gazette, establish a Council to be known as the Pakistan Environmental Protection Council and consisting of :

- | | | |
|--|--------|------------------------|
| (i) the President of Pakistan | | <i>Chairman.</i> |
| (ii) the Minister incharge of the subject of Environment | | <i>Vice-Chairman.</i> |
| (iii) Ministers incharge of the subject of Environment in the Provinces | | <i>Members.</i> |
| (iv) <u>such other persons as the Federal Government may appoint</u> | | <u><i>Members.</i></u> |
| (v) the Secretary to the Government of Pakistan dealing with the subject | | <i>Secretary.</i> |

(2) The members of the Council, other than *ex-officio* members, shall hold office for a term of three years.

(3) The Council shall frame its own rules of procedure.

(4) The Council shall hold meetings as and when necessary :

Provided that not less than two meetings shall be held in a year.

(5) The Council may, by general or special order and subject to such conditions as it may consider fit, delegate any of its functions under this Ordinance to a Committee or any member of the Council.

4. Functions of the Council.—(1) The functions of the Council shall be to—
- (a) ensure enforcement of this Ordinance;
 - (b) establish comprehensive national environmental policy;
 - (c) give appropriate direction to conserve the renewable and expendable resources;
 - (d) ensure that environmental considerations are interweaved into National Development Plans and Policies;
 - (e) ensure enforcement of the National Environment Quality Standards; and
 - (f) give directions to any Government agency, a body or a person requiring it or him to take measures to control pollution being caused by such agency, body or person or to refrain from carrying out any particular activity prejudicial to public interest or the purposes of this Ordinance.

(2) The Council may, or if so required by the Government or any Government agency shall, direct the Agency to prepare, submit and promote projects for the prevention of environmental pollution or to undertake research in any specified aspect of environment.

5. Establishment of the Agency.—(1) The Federal Government shall, by notification in the official Gazette, establish an Agency to be called the Pakistan Environmental Protection Agency to exercise the powers and perform the functions assigned to it under the provisions of this Ordinance or the rules and regulations.

(2) The Agency shall be headed by a Director General who shall be appointed by the Federal Government on such terms and conditions as it may determine.

(3) The powers and functions of the Agency shall be exercised and performed by the Director-General.

(4) The Agency shall have such administrative, technical and legal staff as the Federal Government may appoint.

(5) To assist him in the discharge of his functions, the Director-General may establish such Advisory Committees as he may deem fit and appoint as members thereof eminent representatives of universities, research institutes, the business community and other professions and fields of knowledge.

6. Functions of the Agency.—(1) The Agency shall—

- (a) administer this Ordinance and the rules and regulations;
- (b) prepare national environmental policy for approval of the Council;
- (c) publish an annual report on the state of environment;
- (d) establish National Environmental Quality Standards with the approval of the Council;
- (e) revise the National Environmental Quality Standards as and when deemed necessary;
- (f) coordinate environmental policies and programmes nationally and internationally;

- (g) establish systems for surveys, surveillance, monitoring, measurement, examination and inspection to combat environmental pollution;
 - (h) take measures to promote the development of science and technology which will contribute to the prevention of environmental pollution, such as the consolidation of survey and research system, the promotion of research and development, the dissemination of the results of such research work and development work, and the education and training of research experts and other governmental functionaries;
 - (i) provide information and education to the public on environmental matters and to recommend to the Council the introduction of environmental information in the syllabi of educational institutions; and
 - (j) coordinate and consolidate implementation of measures to control pollution with Provincial Governments and other Government agencies.
- (2) The Agency may—
- (a) request any Government agency to furnish any information or data relevant to the functions of the Agency;
 - (b) with the approval of the Federal Government, initiate requests for foreign assistance in support of the objectives of this Ordinance and enter into arrangements with foreign agencies or organisations for the exchange of material or information and participate in international seminars or meetings;
 - (c) establish and maintain laboratories to conduct research in various aspects of environment and provide grants to institutions for specific projects;
 - (d) delegate any of its powers under this Ordinance and the regulations to any Government agency;
 - (e) identify the needs for legislation in the environmental field;
 - (f) at the request of the Federal Government or a Provincial Government or any Government agency, provide advice and assistance in environmental matters; and
 - (g) perform any other function which the Council may assign to it.

7. Powers of the Agency.—Subject to the provisions of this Ordinance, the Agency may—

- (a) lease, purchase, acquire, own, hold, improve, use or otherwise deal in and with any property, both movable and immovable;
- (b) sell, convey, mortgage, pledge, exchange or otherwise dispose of its property and assets;
- (c) execute instruments, incur liabilities and do all acts or things necessary for proper management and conduct of its business; and
- (d) appoint such advisers and consultants as it considers necessary for efficient performance of its functions on such terms and conditions as may be prescribed by regulations.

(d) all other sums

8. Environmental impact statement, etc., to be submitted to the Agency.—

(1) The provisions of this section shall apply to such—

- (a) persons or class of persons, or
- (b) industrial activity or class of industrial activity, or
- (c) category, type or volume of discharges of air pollutants or wastes, or
- (d) area or class of areas, or
- (e) classes of public waters.

as may be prescribed by regulations.

(2) Every proponent of a project the construction or completion of which is likely to adversely affect the environment shall file with the Agency, at the time of planning the project, a detailed environmental impact statement including information on:

- (a) the impact on the environment of the proposed industrial activity;
- (b) the treatment works of the proposed project;
- (c) the unavoidable adverse environmental effects of the proposed project; and
- (d) the steps proposed to be taken by the project proponent to minimise adverse environmental effects.

(3) The Agency may prescribe guidelines for the preparation of environmental impact statements and, where such guidelines have been prescribed, the proponents of projects shall prepare environmental impact statements according to the said guidelines.

(4) The Agency may itself or through the appropriate Government agency review the environmental impact statement and, where it deems appropriate, it may also involve public participation in the assessment of the environmental impact statement.

(5) After the review under sub-section (4), the Agency may either approve the environmental impact assessment or recommend to the Federal Government that the project be modified or rejected in the interest of environmental objectives.

9. Agency to assist local councils, etc., in disposal of wastes.—The Agency shall assist the local councils, local authorities or other Government agencies and persons to implement schemes for the proper disposal of wastes in line with the standards and procedures prescribed by the Agency.

10. Funds of the Agency.—The funds of the Agency shall be derived from the following sources, namely:—

- (a) grants made and loans advanced by the Federal Government or the Provincial Government;
- (b) grants, loans, advances and other moneys received from local or international agencies;
- (c) fees, rates and charges received by the Agency under the provisions of this Ordinance; and
- (d) all other sums received by the Agency.

11. **Audit and accounts.**—(1) The Agency shall submit its annual budget estimates for approval of the Federal Government through the Council.

(2) The Agency shall maintain proper accounts and other relevant records and prepare annual statement of accounts in such form as may be prescribed by rules.

(3) The accounts of the Agency shall be audited in such manner as may be directed by the Federal Government.

12. **Penalty.**—(1) Whoever contravenes or fails to comply with any provision of this Ordinance or of any rule or regulation or any direction issued by the Agency thereunder, shall be punishable with imprisonment for a term which may extend to two years, or with fine which may extend to one hundred thousand rupees, or with both, and in the case of a continuing contravention or failure, with an additional fine which may extend to ten thousand rupees for every day after the first during which such contravention or failure continues.

(2) The Director General or an officer generally or specially authorised by him in this behalf may compound any offence under this Ordinance.

13. **Indemnity.**—No suit, prosecution or other legal proceeding shall lie against the Council, the Agency, the Director General, or the members, officers, employees, experts or consultants of the Agency for anything in good faith done or intended to be done under this Ordinance or any rule or regulation.

14. **Bar of jurisdiction.**—No Court shall take cognizance of any offence punishable under this Ordinance except on a complaint in writing made by the Agency.

15. **Dues of Agency recoverable as an arrear of land revenue.**—Any dues recoverable by the Agency under the provisions of this Ordinance or any rules or regulations shall be recoverable as an arrear of land revenue.

16. **Power to make rules.**—The Federal Government may, by notification in the official Gazette, make rules for carrying out the purposes of this Ordinance.

17. **Power to make regulations.**—(1) The Agency may, by notification in the official Gazette, with the approval of the Federal Government, make regulations, not inconsistent with the provisions of this Ordinance or the rules, for carrying out the purposes of this Ordinance.

(2) In particular and without prejudice to the generality of the foregoing power, such regulations may provide for the levy of fees, rates and charges in respect of services rendered, actions taken and schemes implemented by the Agency.

GENERAL
M. ZIA-UL-HAQ,
President.

C. A. RAHMAN,
Secretary.



EXTRAORDINARY
PUBLISHED BY AUTHORITY

ISLAMABAD, SUNDAY, MAY, 4, 1986

PART II

Statutory Notifications (S. R. O.)

GOVERNMENT OF PAKISTAN

CENTRAL DIRECTORATE OF NATIONAL SAVING
NOTIFICATIONS

Islamabad, the 4th May, 1986

S. R. O. 440 (I)86.—In terms of Rule 5 of 11-Rupce Special Prize Bonds Rules, published under Ministry of Finance Gazette Notification No. S. R. O. 1404 (I)/71, dated 6th December, 1971 the 'ZY' and 'ZZ' series of 11-Rupce Prize Bonds will remain on sale from 1st June 1986 to 30th June, 1986.

[NS. F. 3 (4) NS. 3/82.]

ABDUL KHALIQ BHATTI,
National Savings Officer.

MINISTRY OF HEALTH, SPECIAL EDUCATION AND SOCIAL WELFARE
(Health Division)

Islamabad, the 30th April, 1986

S. R. O. 441 (I)86.—The following draft of an amendment in the Drugs (Federal Inspectors, Federal Drug Laboratory and Federal Government Analysts) Rules 1976 which it is proposed to make in exercise of the powers conferred by section 43 of the Drugs Act 1976 (XXI of 1976), is published as required by sub-section (3) of the said section, for the information of all persons likely to be affected thereby and notice is hereby given that the draft will be taken into consideration after seven days of its publication in the official Gazette.

2. Any objection or suggestion which may be received from any person in respect of the said draft before the expiry of the said period will be considered by the Federal Government.

DRAFT AMENDMENT

In the aforesaid Rules in rule 13, after the word "drugs" at the end, the words "or experience of Drugs Control Administration or Drugs Quality Control Administration or of both for a period aggregating not less than five years" shall be added.

[No. F. 1220—JS (H)/86.]

BALAND AKHTAR,
Deputy Secretary.

MINISTRY OF HOUSING AND WORKS ENVIRONMENT AND URBAN AFFAIRS DIVISION

(Pakistan Environmental Protection Agency)

Islamabad, the 28th April, 1986

S. R. O. 442 (I)/86.—In exercise of the powers conferred by clause (d) of sub-section (2) of section 6 of the Pakistan Environmental Protection Ordinance 1983 (XXXVII of 1983), the Pakistan Environmental Protection Agency is pleased to delegate all its powers under Section 7 of the said Ordinance to the Director-General, Ports and Shipping Wing, Ministry of Communications, Karachi in so far as they relate to marine pollution caused from ships.

ABDUR RAHIM MAHSUD,
Director General.

MINISTRY OF INTERIOR

Islamabad, the 4th May, 1986

S. R. O. 443 (I)/86.—In exercise of the powers conferred by sub-section (3) of section 3 of the Pakistan Essential Services (Maintenance) Act, 1952 (LIII of 1952), the Federal Government is pleased to direct that the declaration made in this Ministry's Notification No. S. R. O. 208 (I)/86, dated the 4th March, 1986, declaring all classes of employment under M/s. Dillingham National Construction Joint Venture Contractors and their sub-Contractors working at the Tarbela Project to be employment to which the said Act shall apply, shall remain in force for a further period of three months commencing on the 4th May, 1986.

[No. 7/11/79-Poll. I (2).]

JALALUDDIN SUHAIL,
Deputy Secretary.

PART XV

PREVENTION OF WATER POLLUTION FROM SHIPS

CHAPTER 43

Defini-
tions.

578. In this part unless there is anything repugnant in the subject or context:-

- (a) "Convention" means the International Convention for the prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978, relating thereto (MARPOL 73/78), as amended from time to time;
- (b) "Convention Country" means any country in respect to which the Convention referred to in clause (a) is in force and includes any country to which such convention extends;
- (c) "Discharge", in relation to harmful substances or effluents containing such substances, means any release howsoever caused from a ship and includes any escape, disposal, spilling, leaking, pumping emitting or emptying; "Discharge" does not include:
 - (i) dumping within the meaning of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter done at London on 13 November 1972; or
 - (ii) release of harmful substances directly arising from the exploration, exploitation and associated off-shore processing of sea-bed mineral resources; or
 - (iii) release of harmful substances for purposes legitimate scientific research into pollution abatement or control.
- (d) "Oil" means petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products;
- (e) "Existing Ship" means any ship which is not a "new ship".

- (f) "New Ship" means a ship;
 - (i) for which the building contract is placed after 31-12-1975; or
 - (ii) in the absence of a building contract, the keel which is laid or which is at a similar stage of construction after 30-6-76; or;
 - (iii) the delivery of which is after 31-12-1979; or
 - (iv) which has undergone a major conversion,
 - aa) for which the contract is placed after 31-12-75; or
 - bb) in the absence of a contract, construction work of which is begun after 30-6-76;
 - cc) which is completed after 31-12-79.
- (g) "Harmful substance" means oil and other substances which if introduced into the sea or other water areas, 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 or other water areas;
- (h) "Oily Mixture" means a mixture with any oil content.
- (i) "Oil Tanker" means a ship constructed or adapted primarily to carry oil in bulk in its cargo spaces and includes combination carriers and any "chemical tanker", when it is carrying a cargo or part cargo of oil in bulk.
- (j) "Ship" means any vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft (self-propelled or not) and fixed or floating platforms.
- (k) "Marine Environment" means the navigable waters of Pakistan and the land and resources therein and thereunder; the waters and

fishery resources of any area over which Pakistan asserts exclusive fishery management authority; the sea-bed and sub-soil of the outer continental shelf of Pakistan, the resources thereof and the waters superjacent thereto; and the recreational, economic, and scenic values of waters and resources;

(l) "Director-General" means the Director-General of the Ports & Shipping Wing, Ministry of Communications.

(m) "Nearest land". The term "from the nearest land" means from the baseline from which the territorial sea of the territory in question is established in accordance with international law.

(n) "Special area" means a sea area where for recognised technical reasons in relation to its oceanographical and ecological condition and to the particular character of its traffic the adoption of special mandatory methods for the prevention of sea pollution is required.

(o) "instantaneous rate of discharge of oil content" means the rate of discharge of oil in litres per hour at any instant divided by the speed of the ship in knots at the same instant.

(p) "Chemical tanker" means a ship constructed or adapted primarily to carry a cargo of noxious liquid substances in bulk and includes an "oil tanker" when it is carrying a cargo or part cargo of noxious liquid substances in bulk.

(q) "Garbage" means all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically except those substances which are defined or listed in the present Convention.

(r) "Sewage" means:

(a) drainage and other wastes from any form of toilets, urinals, and WC scuppers;

(b) drainage from medical premises (dispensary, sick bay, etc.) via wash basin, wash tubs and scuppers located in such premises;

(c) drainage from spaces containing living animals; or

(d) other waste waters when mixed with the drainages defined above.

(s) "Off-shore installation" means an installation, whether mobile or fixed, which is used or is intended to be used for underwater exploration or exploitation of crude oil, petroleum or other similar mineral oils, under lease, licence or any other form of contractual arrangement and includes:-

(a) any installation which could be moved from place to place under its own motive power or otherwise; and

(b) a pipe-line;

International pollution prevention certificates. 579. (1) Each Pakistani Oil tanker of 150 gross tons and above and each other Pakistani ship of 400 gross tons and above; or any Pakistani chemical Tanker must have onboard a valid International Oil Pollution Prevention Certificate; (hereinafter referred to as IOPP Certificate) or International Pollution Prevention Certificate for the carriage of noxious liquid substances in bulk (hereinafter referred to as IPP Certificate) as the case may be.

(2) Each oil tanker of 150 gross tons and above and each other ship of 400 gross tons and above, or any Pakistani chemical Tanker, operated under the authority of a country other than Pakistani, i.e. Party to MARPOL 73/78, must have onboard a valid IOPP or IPP Certificate; as applicable.

(3) The IOPP or IPP Certificate shall be in the prescribed form issued by the Federal Government or by duly authorised classification society after a satisfactory survey in the prescribed manner.

(4) The supplement to the IOPP Certificate or IPP Certificate is a part of the IOPP or IPP Certificate as the case may be and must remain attached to that Certificate. If the supplement to the Certificate is changed a new IOPP or IPP Certificate will be required.

(5) An IOPP Certificate of IPP Certificate shall be issued for a period prescribed by the Federal Government, which shall not exceed 5 years from the date of issue; except as follows:-

- (i) a certificate ceases to be valid if significant alterations have taken place in the construction, equipment, fittings, or arrangements required by the pollution prevention requirements, without the approval of the Federal Government or authorised classification society;
- (ii) a certificate ceases to be valid if intermediate surveys as required under the rules are not carried out;
- (iii) a certificate issued to a ship ceases to be valid upon transfer of the ship to the flag of another country;

(6) No officer of customs shall grant a port-clearance to a Pakistani ship specified in sub-section (1) or to a ship specified in sub-section (2) until after the production of an International Oil Pollution Prevention Certificate; or International Pollution Prevention Certificate for the carriage of Noxious Liquid Substances in bulk, as applicable.

(7) The provisions of this section shall take effect from such date as the Federal Government may, by Notification in the Official Gazette appoint, or from the date the convention for Pakistan enters into force.

International
Sewage
pollution
Prevention
Certificate.

580. (1) Each Pakistani ship may be issued with an International Sewage Pollution Prevention Certificate for a period prescribed by the Federal Government, which shall not exceed 5 years from the date of issue.

(2) The provisions of this section shall take effect from such date as the Federal Government may by Notification in the Official Gazette appoint.

581. (1) No oil or oily mixture or harmful substance shall be discharged from:-

- (a) a Pakistani oil tanker or a foreign oil tanker unless all the following conditions are satisfied:

- (i) such vessel is not within the special area;

(ii) such vessel is more than 50 nautical miles from Pakistan Coast;

(iii) such vessel is proceeding en route;

(iv) the instantaneous rate of discharge of oil content does not exceed 60 litres per nautical mile;

(v) the total quantity of oil discharged into the sea does not exceed for existing tankers 1/15,000 of the total quantity of the particular cargo of which the residue formed a part, and for new tankers 1/30,000 of the total quantity of the particular cargo of which the residue formed a part; and

(vi) the tanker has in operation an oil discharge monitoring and control system and a slop tank arrangement as required by the prescribed rules;

(b) from a Pakistani ship or a foreign ship of gross tonnage of four hundred tons and above other than an oil tanker unless the following conditions are satisfied:-

(i) such vessel is not within the special area;

(ii) such ship is more than 12 nautical miles from nearest land.

(iii) such ship is not proceeding enroute.

(iv) the oil content of the effluent is less than 100 parts per million;

(v) the ship has in operation an oil discharge monitoring and control system, oily water separating equipment, oil filtering system or other installation as required by rules prescribed.

Provided that this sub-section shall not apply in any case where by reason of special circumstance it is impracticable or unreasonable to retain the oil or oily mixture in the ship and the master of the ship reports, within twenty-four hours after such discharge the fact in the prescribed form and manner to the Federal Government.

(2) Every ship of gross tonnage of less than four hundred tons shall be equipped as far as practicable and reasonable with installations to ensure the storage of oil residues on board and their discharge to reception facilities.

(3) (a) If oil or oily mixture or harmful substance is discharged in contravention of sub-section (1) the master or the owner of the ship shall be liable to a penalty of Category-Zero, and, in the case of a continuing contravention or failure with an additional penalty of Category-IV for every day after the first during which such contravention or failure continues;

(b) The Federal Government or an officer generally or specifically authorised by it in this behalf may compound any offence under this section.

Prohibition
against
liquid
substances
pollution
from
ships.

582. (1) For the purpose of this section, noxious liquid substances shall be divided into four categories, namely, Category A, B, C, and Category D as prescribed.

(2) The discharge into the sea of substances in Category A as prescribed or of those provisionally assessed as such or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited. If tanks containing such substances or mixtures are to be washed, the resulting residues shall be discharged to a reception facility until the concentration of the substances in the effluent to such facility is at or below the residual concentration prescribed for that substance until the tank is empty. Provided that the residue then remaining in the tank is subsequently diluted by the addition of a volume of water of not less than 5 per cent of the total volume of the tank, it may be discharged into the sea when all the following conditions are also satisfied:

(a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;

(b) the discharge is made below the waterline, taking into account the location of the seawater intakes; and

(c) the discharge is made at distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.

(3) The discharge into the sea of substances in Category B as prescribed or of those provisionally assessed as such, or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited except when all the following conditions are satisfied;

(a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled.

(b) the procedures and arrangements for discharge are approved by the Federal Government. Such procedures and arrangements shall be based upon prescribed standards and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in the wake astern of the ship does not exceed 1 part per million;

(c) the maximum quantity of cargo discharged from each tank and its associated piping system does not exceed the maximum quantity approved in accordance with the procedures referred to in sub-section (b) of this section, which shall in no case exceed the greater of 1 cubic metre or 1/3,000 of the tank capacity in cubic metres.

(d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and

(e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.

(4) The discharge into the sea of substances in Category C as prescribed or of those provisionally assessed as such, or ballast water, tank washings, or other residues of mixtures containing such substances

shall be prohibited except when all the following conditions are satisfied

- (a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
- (b) the procedures and arrangements for discharge are approved by the Federal Government. Such procedures and arrangements shall be based upon prescribed standards, and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in the wake astern of the ship does not exceed 10 parts per million;
- (c) the maximum quantity of cargo discharged from each tank and its associated piping system does not exceed the maximum quantity approved in accordance with the procedures referred to in sub-section (b) of this section which shall in no case exceed the greater of 3 cubic metres or 1/1,000 of the tank capacity in cubic metres;
- (d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and
- (e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres;

(5) The discharge into the sea of substances in Category D as prescribed or of those provisionally assessed as such, or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited except when all the following conditions are satisfied;

- (a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
- (b) such mixtures are of a concentration not greater than one part of the substance in ten parts of water; and

(c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land.

(6) The discharge into the sea of substances which have not been categorised, provisionally assessed, or evaluated by the Federal Government or of ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited unless specially permitted by the Federal Government.

(7) If noxious liquid substances or their residues are discharged in contravention of this section, the master or the owner of the ship shall be liable to a penalty of Category-Zero.

Special powers.

583. The Federal Government or the person authorised by it, may order any vessel, in a port or place subject to the jurisdiction of Pakistan or in the navigable waters of Pakistan, to operate or anchor in a manner he directs if:-

(a) he has reasonable cause to believe such vessel does not comply with any regulation issued under this act or any other applicable law or treaty/convention;

(b) by reason of weather, visibility, sea conditions, port congestion, other hazardous circumstances, or the condition of such vessel, he is satisfied that such directive is justified in the interest of safety;

(c) he determines that such vessel does not satisfy the conditions for port entry as under, if such;

(i) vessel has a history of accident, pollution incidents, or serious repair problems which, as determined by the Federal Government or person authorised by it creates reasons to believe that such vessel may be unsafe or may create a threat to the marine environment; or

(ii) vessel fails to comply with any applicable regulation issued under this act, as amended, or under any other applicable law or treaty/convention; or

- (iii) vessel discharges oil or hazardous material in violation of any law of Pakistan or in a manner of quantities inconsistent with the provisions of any treaty/convention to which the Pakistan Government is a party; or
 - (iv) vessel does not comply with any applicable vessel traffic service requirements; or
 - (v) vessel is manned by one or more officers who are licensed/certificated by a certificating state which the Federal Government or person authorised by it, has determined, does not have standards for licensing and certification of seafarers which are comparable to or more stringent than Pakistan's standards or international standards which are accepted by the Government of Pakistan; or
 - (vi) vessel is not manned in compliance with manning levels as determined by the Federal Government or person authorised by it to be necessary to ensure the safe navigation of the vessel; or
 - (vii) vessel while underway, does not have at least one licensed/certificated Deck Officer on the navigation bridge who is capable of clearly understanding marine (nautical) terminology.
- (d) The Federal Government or person authorised by it may allow provisional entry of a vessel not in compliance with sub-section (c), if the owner or operator of such vessel proves, to the satisfaction of the Federal Government or person authorised that such vessel is not unsafe or a threat to the marine environment, and if such entry is necessary for the safety of the vessel or persons abroad;

Indemnity.

584. No suit, prosecution or other legal proceeding shall lie against the Federal Government, or the members, officers, employees, experts or consultants for anything in good faith done or intended to be done under this Chapter or any rule or regulation.

Exceptions for emergencies. 585. Nothing in section 581 and 582 shall apply to:-

- (1) the discharge into the sea of oil or oily mixture or noxious liquid substances or mixture containing such substances necessary for the purpose of securing the safety of a ship or saving life at sea.
- (2) the discharge into the sea of oil or oily mixture or noxious liquid substances or mixture containing such substances resulting from damage to a ship or its equipment.
 - (a) Provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the discharge for the purpose of preventing or minimizing the discharge; and
 - (b) except if the owner or the master acted either with intent to cause damage or recklessly and with knowledge that damage would probably result.
 - (c) the discharge into the sea of noxious liquid substances or mixtures containing such substances, approved by the Federal Government, when being used for the purpose of combating specific pollution incidents in order to minimize the damage from pollution.

Equipment in ships to prevent pollution.

586. (1) For the purpose of preventing or reducing discharges of oil and oily mixtures into the sea, and for cleaning, removing or dispersing any oil and oily mixture already discharged, the Federal Government may make rules requiring Pakistani ships to be fitted with such equipment and to comply with such other requirements (including requirement for preventing the escape of fuel oil or heavy diesel oil into bilges) as may be prescribed.

(2) If a Pakistani ship is not fitted with equipment prescribed in sub-section (1) the master, owner/operator or the agent shall be liable to a penalty of Category-III and in addition with a penalty of Category-V for every day during which the offence continues after conviction.

Oil Record Book.

587. (1) Each oil tanker of 150 gross tons and above, ship of 400 gross tons and above other than an oil tanker, and manned fixed or floating drilling rig or other platform to which this part applies; shall maintain an oil record book part-I (machinery space operations). An oil tanker of 150 gross tons and above or a non-oil tanker that carries 200 cub. meters or more of oil in bulk, shall also maintain an oil record book part-II (cargo/ballast operations).

(2) The form and manner in which the oil record book shall be maintained, the nature of the entries to be made therein, the time and circumstances in which such entries shall be made, the custody and disposal thereof and all other matters relating thereto shall be such as may be prescribed having regard to the provisions of the convention.

(3) If the Master of an oil tanker or other ship fails to maintain an oil record book as required by this section and contravenes any rules, other than the rule referred to in sub-section (4) below, made under this section shall, for each offence, be liable to a penalty of Category-IV.

(4) If any person wilfully destroys or mutilates or renders illegible or prevents the making of, any entry in the oil record book or makes or causes to be made a false entry in such book in contravention of any rule made under this section, he shall for each offence, be liable to a penalty of Category-III.

Cargo Record Book for Chemical Tankers.

588. Each chemical tanker to which this chapter applies shall maintain a Cargo Record Book, whether as part of the ship's official log book or otherwise, in the the prescribed form.

Inspection and control of ships to which the convention applies.

589. (1) A surveyor or any person appointed in this behalf by the Federal Government may, at any reasonable time, go on board a ship to which any of the provisions of this part apply, for the purposes of:-

- (a) ensuring that the prohibitions, restrictions and obligations imposed by or under this Part are complied with;
- (b) satisfying himself about the adequacy of the measures taken to prevent the escape of oil or oily mixture or noxious liquid substances from the ship;

(c) ascertaining the circumstances relating to an alleged discharge of oil or oily mixture or of noxious liquid substances from the ship in contravention of the provisions of this Part; and

(d) investigating and apportioning responsibility whenever information is received regarding the existence of visible traces of oil or contamination by noxious liquid substances on or below the surface of water in the immediate vicinity of a ship or its wake.

(e) inspecting the oil record book or cargo record book.

(2) The surveyor or any such person may, if necessary, make without unduly delaying the ship, a true copy of any entry in the oil/cargo record book of the ship, and may require the master of the ship to certify the copy to be a true copy and such copy shall be admissible as evidence of the facts stated therein.

Information regarding contravention of the provisions of the convention.

590. (1) If, on report from a surveyor or other person authorised to inspect a vessel under section 588, the Federal Government is satisfied that any provision of the Convention has been contravened anywhere by a foreign ship being a ship to which the provisions of the Convention apply, it shall transmit particulars of the alleged contravention to the Government of the country to which the ship belongs.

(2) On receipt of information from the Government of any country which has ratified the Convention that a Pakistani ship has contravened any provision of the convention, the Federal Government shall investigate the matter and if satisfied that any provision of this Part or any rule made thereunder has been contravened, take appropriate action against the owner or master and intimate such Government of the action so taken.

Oil reception facilities at ports in Pakistan.

591. (1) Notwithstanding anything contained in any other law for the time being in force, in respect of every port in Pakistan, the [powers of the port authority shall include the power to provide oil reception facilities.

(2) A port authority providing oil reception facilities or a person providing such facilities by arrangement with the port authority, may make charges for the use of facilities at such rates and may imposed

such conditions in respect of the use thereof as may be approved, by notification in the Official Gazette, by the Federal Government in respect of the port.

(3) Where the Federal Government is satisfied that there are no oil reception facilities at any port in Pakistan or that the facilities available at such port are not adequate for enabling ships calling at such port to comply with the requirements of the convention, the Federal Government may after consultation with the port authority in charge of such port, direct by order in writing such authority to provide or arrange for the provision of such oil reception facilities as may be specified in the order.

Reception facilities for noxious liquid substances in Pakistan.

592. The Federal Government is to ensure the provisions of reception facilities according to the needs of ships using its ports, terminals or repair ports as follows:

- (a) cargo loading and unloading ports and terminals shall have facilities adequate for reception of residues and mixtures containing noxious liquid substances.
- (b) ship repair ports undertaking repairs to chemical tankers shall have facilities adequate for the reception of residues and mixtures containing noxious liquid substances.

Pollution from shipping casualties

593. (1) If an accident occurs involving any ship in or outside Pakistan waters and the Federal Government is of the opinion that oil or oily mixture or harmful substance from such ship will or may cause pollution or damage to the marine environment on a large scale in Pakistan waters, it may give such directions to the master, owner, charterer, salvor or agent of the ship as it considers necessary to avoid, reduce or neutralise such pollution and damage of the marine environment.

(2) If a master, owner, charterer, salvor or agent fails to comply with the directions given under sub-section (1) he shall, for each offence, be liable to a penalty of Category-Zero.

Prohibition of dumping.

594. The dumping of wastes or other matter included in category I of the relevant convention designated by or under government regulation is prohibited. Any person acting in contravention to this section shall be liable to a penalty of Category-Zero.

Permits for
dumping.

595. (1) The dumping of wastes or other matter included in category II of the relevant conventions designated by or under government regulation is prohibited unless a prior special permit has been issued by the Federal Government.

(2) The dumping of wastes or other matter not included in categories I and II of the relevant convention is prohibited unless a prior general permit has been issued by the Federal Government.

(3) Any person acting in contravention to this section shall be liable to a penalty of Category-I.

Prohibi-
tion of
loading
without
permit.

596. (1) The loading of wastes or other matter on board a ship in a Pakistan port with the intention of subsequent dumping anywhere at sea is prohibited. Any person acting in contravention to this section shall be liable to a penalty of Category-I.

(2) Para 1 does not apply to substances referred to in section 595, provided prior to the loading a permit has been issued by the Federal Government in accordance with section 595.

Exemption

597. Sections 594 and 595 do not apply when it is necessary to secure the safety of human life or of ships in cases of force majeure caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to ships, if dumping appears to be the only way of averting the threat and if there is every probability that the damage consequent upon such dumping will be less than would otherwise occur. Such dumping shall be so conducted as to minimize the likelihood of damage to human or marine life and shall be reported forthwith by the master to the Federal Government.

Exception

598. The Federal Government may issue a special permit as an exception to section 594 in emergencies posing unacceptable risk relating to human health and admitting no other feasible solution.

Conditions
to permits

599. When issuing a permit in accordance with section 595 and 598, the Federal Government may attach such conditions and restrictions inter-alia relating to the dumping site, as may be necessary for the protection of the marine environment or the safety and health of persons.

Recognition of foreign permits

600. A permit for the dumping of wastes or other matter issued by competent foreign authorities may be recognized by the Federal Government as a permit issued in accordance with section 595.

Recovery and Liability

601. (1) The Federal Government may order the owner or master of a ship who has violated sections 594 and 595 or who has dumped in accordance with section 597, to recover, if practicable, the wastes or other matter which were dumped if such wastes or other matter constitute a serious threat to the marine environment or the safety of human life or navigation. The costs of such recovery shall be borne by the owner of the ship.

(2) The Federal Government has a legal claim on the owner of the ship which has violated sections 594 and 595 or which has dumped in accordance with section 597, for all reasonable costs incurred by the government in the recovery of the wastes or other matter referred to in para 1.

Power to make rules.

602. (1) The Federal Government may make rules for the implementation of the provisions of this Part.

(2) In particular and without any prejudice to the generality of the provisions of sub-section (1) such rules may provide for any of the following matters, namely:-

- (a) the form and the manner in which the International Oil Pollution Prevention Certificate or International Pollution Prevention Certificate for noxious liquid substances in bulk is to be issued and any extensions thereof granted.
- (b) the form and the manner in which the oil record book or cargo record book shall be maintained.
- (c) the manner in which investigation may be made by the Federal Government for the purpose of sub-section (2) of section 590.
- (d) the mode or the manner of construction of new ships and any structural alterations in the existing ships for the purpose of giving effect to the provisions of section 586.

- (e) The Federal Government, or an authority appointed by the Government, may issue provision, or in individual cases allow, exemptions from the provisions of this chapter. In connection with such exemptions certain conditions may be stipulated.
- (f) Provisions issued by virtue of this Act must not contravene provision which bind Pakistan to International agreements. The same shall apply in respect of exemptions referred to in sub-section(2) part (e).
- (g) The application for permits, and the issue, refusal, publication and cancellation of permits for dumping.
- (h) The tariffs for the issue of a permit under this Act, and on the form of a permit for dumping.

4 - 20 海洋汚染防止及びSARに関する
ワーキングペーパー (II)

W O R K I N G P A P E R

1. Marine Anti-pollution Measures.
2. Marine Safety Search & Rescue Measures

For meetings to be held on :-
19th, 20th and 21st Dec; 1989

No. 7(25)/89 - CNS
GOVERNMENT OF PAKISTAN
MINISTRY OF COMMUNICATIONS
(PORTS & SHIPPING WING)
**** * * * * *

Karachi, the 14th December, 1989

W O R K I N G P A P E R

SUBJECT:- MARINE ANTI-POLLUTION MEASURES AND MARINE SAFETY
SEARCH & RESCUE MEASURES:

Pakistan has an international and national obligation to take effective measures for Marine Safety Search and Rescue and to enforce pollution preventive/combating techniques.

2. Ports & Shipping Wing has initiated an action to meet that obligation by inviting number of missions on Civil Maritime SAR Organization and on Marine Oil Pollution. In this context, it has been felt that Ports & Shipping Wing should be made nerve centre by providing it with latest "Computer oriented communications system" to facilitate:-

- i) co-ordination at National and International level.
- ii) co-ordination in the assigned region for search and rescue within area 10a of North West Indian Ocean.
- iii) participation in global Maritime Distress and Safety system alongwith other agencies.
- iv) co-ordination with the coastal light-houses located at Ormara, Pasni, Gwadur, Jiwani, Astola, Cape Monze, Sir Creek and Turshian Mouth for collection of SAR information in their adjoining areas.
- v) operational efficiency of measures taken by various agencies to combat marine pollution, punitive actions on oil spills within harbour limits and

beyond including Exclusive Economic Zone of Pakistan.

- vi) contact with Karachi Radio, Civil Aviation Authority, Maritime Security Agency, Pakistan Coast Guard, Nav Area-IX Co-ordinator and control towers of Port Authorities.

3. Further the establishment of A1 and A2 areas on the Pakistan coast are not considered necessary. The facilities to establish A3 area is the requirement of the day, i.e. within the coverage area of geostationary maritime communication satellites, hence the Pakistan Merchant Marine vessels would be complying with the requirements of A3 area. Pakistan is a signatory to the INMARSAT Convention, hence equipment should be of the type to receive INMARSAT Communications.

LEGISLATIVE POSITION:

Existing

- i) Pakistan Environmental Protection Ordinance, 1983 (No. XXXVII of 1983).
- ii) S.R.O. 442(1)/86, dated 28th April, 1986.
- iii) Ports Act, 1908 (XV of 1908), as modified.
- iv) Resolution for Maritime Security Agency No:F.1/3/86/MAW(M-1), dated 26th Jan; 1987.

Future

A chapter on "Prevention of Water Pollution from Ships" has been added in the Proposed Merchant Shipping Bill.

ROLE OF OTHER ORGANIZATIONS:

Maritime Security Agency: Maritime Security Agency (MSA) is the operational organization responsible to carry out and co-ordinate search and rescue for the vessels, property and lives in distress, to prevent and control the effects of marine disaster including sea pollution within the parameters of Notification No:1/3/86/MAW(M-1), dated 26th Jan; 1987.

Karachi Fish Harbour - A new bunkering point should be situated near to the entrance with a reception facility provided where all waste oils and contaminated materials can be received. A local contractor should be appointed to clear the reception tank for the correct and safe disposal of the waste. The bunkering point must be maintained to a high standard with hoses regularly inspected and tested. Drip trays for the hoses must be provided. Garbage skips should be placed at convenient locations with arrangements made for regular collection and disposal.

Pakistan Refinery Limited - Immediate action is required to remove and replenish the straw baskets and to overhaul the working parts of the API type separator and thereafter maintain a higher standard of ongoing maintenance. A new API separator should be constructed with about four times the existing surface area to be in line with the current requirements for oily water separation. Dust and sand being blown into the open separator pits helps to create sludge and this could be countered by providing light sectionalised lids over the pits.

Existing and Proposed Fish Harbour Koranqi Creek Area -

Existing fish ports should be provided with facilities to deposit waste oils and garbage for correct and safe disposal. All new fish harbours must have similar facilities included at the design stage.

Karachi Shipyard and Engineering Works Limited - The Shipyard

should provide a complete reception facility for waste oils, contaminated water and garbage. This could be a fixed installation and or a converted barge for use by all visiting ships.

Gadani Shipbreaking Beach - The statement that ships are gas free

before cutting is commenced should be investigated more deeply because the falsification of this state could lead to a very serious accident. More oil could be removed before cutting starts by the use of more efficient pumps such as double diaphragm, positive displacement or submersible pumps which are all available from the ships themselves. Sludge which is removed manually must be transferred to the shore in drums or tipped into a barge alongside instead of being thrown into the sea. When breaking tankers a boom could be placed across its stern and the next ship each side so that oil spilt would be trapped between the hulls, then either skimmed with floating equipment or beached for manually lifting into drums. This would not be practicable in the Monsoon Season (or even necessary). Sludge and oil should be collected and incinerated when tanker sections are set alight to rid them of residual oils before further cutting.

Pakistan State Oil Co. Ltd. Keamari - A small store of anti oil pollution equipment should be held in readiness for minor oil spills with personnel trained in its efficient use. Future or replacement pipelines should be laid in a form to allow pigging to obviate the necessity of water flushing. All areas inside bund walls should be graded to a sump to facilitate pumping out in the event of a spillage. These comments should apply to all similar tank farms in the Keamari area and at other locations.

Karachi Port Trust - The Trust should provide reception facilities to deal with oily wastes, oily water and garbage from all visiting ships. Issue instructions to companies with pipes which are no longer in use, that these should be removed from jetties and bridges within one month or they will be removed by others and costs charged to the owner. All the remaining pipes to be supported properly, allowing for expansion and contraction, and labelled at each end with owners name, products pumped, maximum working pressure, size and emergency telephone contact. All flange connections must be completely bolted. All anti-static and earthing strips to be connected and checked for continuity. All flexible hoses used in loading or discharge should be tested at least annually and a log maintained. Look into fitting hoses with safety shut off (breakaway) couplings. These are available but can be expensive, budget Pounds Sterling 5,500 for a 6" NB fitting. When new balanced swing arm assemblies are installed they should be complete with automatic emergency shut off valves. New pipelines should be to piggable standard. Fit oil discharge and receiving jetties with floating

oil containment boom. Permanent between piers & temporary around each ship during pumping operations. Have on standby floating oil skimmers to retrieve any spilled oil. Provide means of communication between oil berths and shore station. This may be already covered by radio during actual operations but a telephone should always be available for the emergency. Provide a floating reception facility for use of any visiting ship. This barge could receive garbage and double up as an oil collection skimming vessel in case of a spill. More than one may be required. Provide reception facilities in the fish harbour where garbage and waste oils etc. can be deposited by boat crews. Provide and maintain drip trays on jetty installations. Display hazard warning notices. Increase security on jetties. The use of spade flanges must be banned and properly sealing valves used. Every time a spade flange is used there is spillage of product.

The Keamari Marketing Companies Trench is an area which requires immediate attention and the following points must be considered. The trench should be drained by use of suction tankers and the bottom graded into concrete sumps at say every 100m. Any future spillage will drain to sumps for easy removal. All outlets from the trench itself should be blocked and all emptying controlled by pumping into tankers. A strong fence should be erected along full length of trench, with access points at each sump location. Owners name and emergency contact painted on each line at sump points.

Pasni Fisheries Harbour - That reception facilities in the form of a steel tank and compound be provided alongside the fuelling point so that waste oils and garbage can be deposited for controlled collection and disposal. The pipelines from the three storage tanks should be laid in a covered sectional duct which could also carry other services such as water, electrics, telephone and drainage. The tanks to be provided by a fuel marketing company will be individually surrounded by bund walls and with graded floors to sumps for pumping out. The mouth of the port should be protected by having an oil defence boom ready to place across the entrance from breakwater to breakwater.

Pakistan Naval Dockyard Karachi - That two oil reception barges are provided by converting existing dump barges. Two 200T and two unused ammunition barges of about 250T capacity would be ideal for modification. One small and a large unit could service most of the naval ships and the modifications be carried out in the Dockyard from the basic design left with the engineering officer. Once these barges are available more stringent control of harbour discharge can be enforced. All hoses used to load or discharge petroleum products should be checked regularly and subject to test at least once a year. That the naval dockyard should have its own central sewage treatment plant, there is room for one and certainly this is a requirement if water quality is to be improved.

Gwadar Fish Harbour - A reception facility at bunkering points must be provided where waste oils and garbage should be deposited and cleared regularly for correct disposal inland. When a tanker visits the port to discharge petroleum products, the ship should be surrounded with an oil containment boom during pumping operations.

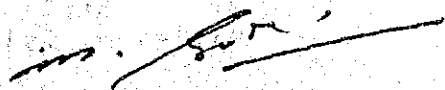
Pakistan Marine Academy - Lectures on oil pollution prevention and control should be introduced into the curriculum and use be made of the IMO/Videotel video series "Response to Marine Oil Spills".

Port Qasim Authority - A floating or static waste oil and garbage reception facility is provided for use by the small craft in the services fleet. The steel mill and power station water intake channels should be permanently protected by placing at least three oil booms across each channel at about 90m intervals. Simple side piers may have to be built to accommodate the boom ends allowing them to rise and fall with the tide. When the interim facility for discharge of oil at marginal wharf No. 1 is started, boom to be positioned once tanker is alongside and removed to allow departure. A floating skimmer and other equipment to be on site in case of spillage. All onshore oil storage tanks to be properly surrounded with bund walls. Consideration should be given to having all pipeline laid to

piaging standards so that products can be batched and freed of water where necessary. When a permanent oil terminal is built, an on shore reception facility to receive dirty ballast, tank washings and bilge waters must be included.

Annexures

- i) Strategy Plan.
- ii) Operational Plan.


(CAPTAIN I.M.KHAN SAMADANI)
Chief Nautical Surveyor
Tele: 512624

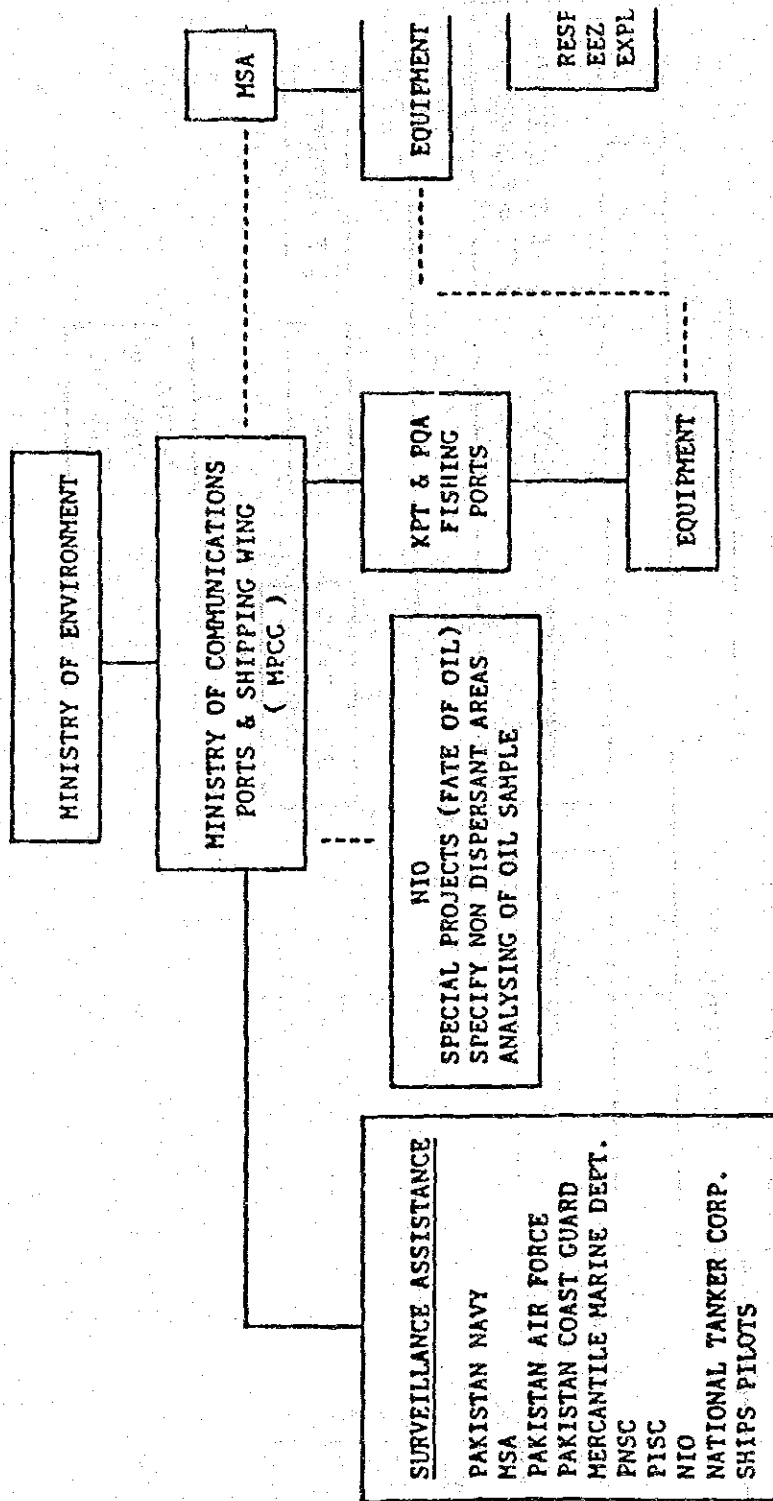
DISTRIBUTION:

1. Rear Admiral Sajjad Akbar, Additional Secretary/Director General, Ports & Shipping Wing Ministry of Communications, Karachi.
2. Mr. Yuji HAYAFUNE Leader Deputy Director, Rescue Division, Guard and Rescue Department, Maritime Safety Agency.
3. Mr.Sadao FUJIOKA Special Assistant to Director, Administration Division, Aids to Navigation Department, Maritime Safety Agency.
4. Mr. Masami NODA Chief, International Cooperation Section, International Affairs Division, Administration Department, Maritime Safety Agency.
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6. Mr.Akira NISHIMOTO First Experts Assignment Division, Experts Assignment Department, Japan International Cooperation Agency. (JICA)

Representative of - Ministry of Petroleum and Natural Resources.

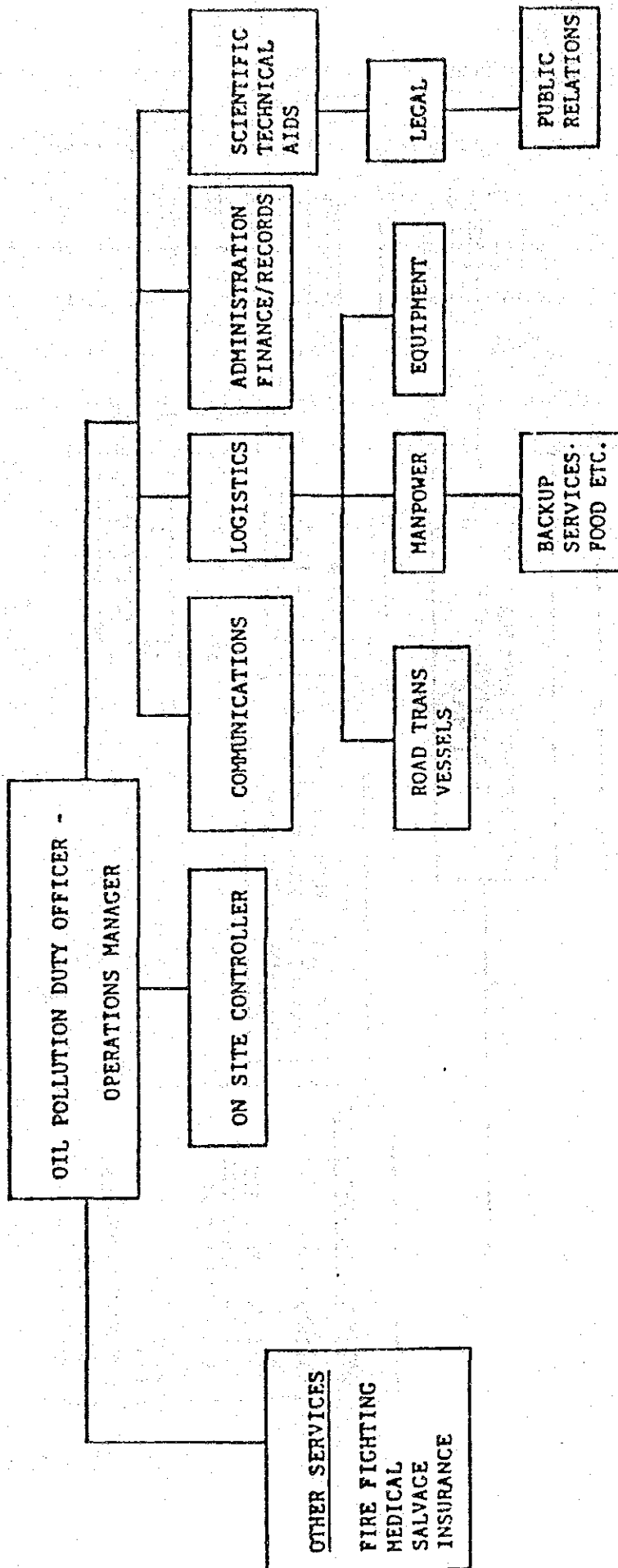
8. Representative of - Maritime Security Agency.
9. Representative of - Karachi Port Trust.
10. Representative of - Port Qasim Authority.
11. Representative of - National Tanker Company.
12. Project Director of Guwadur Fish Harbour.
13. Capt. Irfan-ul-Haq Dar, Director of Projects,
14. Mr. Khalid Javaid, Section Officer, Economic Affairs Division, Islamabad.
15. Mr. Javaid Iqbal, Section Officer(P&S-II), Ministry of Communications, Islamabad.
16. Mr. Hameed, J.I.C.A, Islamabad.
17. File No. 7(25)/89-CNS.
18. Deputy Chief Nautical Surveyor.

STRATEGY PLAN



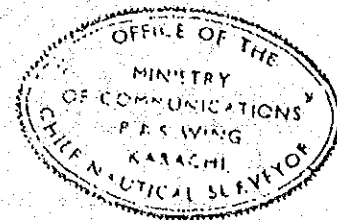
RAS/86/163

OPERATIONAL PLAN



4 - 21 油による海洋汚染に関する
コンサルタントの報告書

INTERNATIONAL MARITIME
ORGANIZATION



MISSION REPORT

of the

Consultant in Marine Oil Pollution

Funded

Under Project RAS/86/163

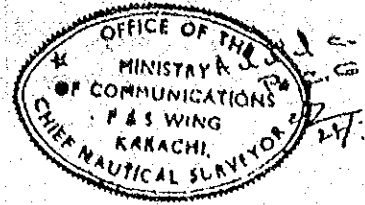
AD HOC CONSULTANCIES IN MARITIME SAFETY TRAINING

Karachi, PAKISTAN

(17 January to 4 February 1988)



CONSULTANTS ASSIGNMENT REPORT



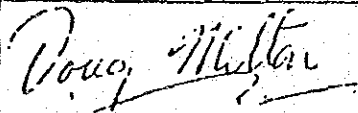
Consultant's Name S.D. MILTON	United Nations Development Programme Project No.: RAS/86/163 Agency: IMO																		
Project Title: AD HOC CONSULTANCIES IN MARITIME SAFETY TRAINING																			
Country of Assignment: Karachi, PAKISTAN	Duration : 17 January - 4 February 1988																		
<p style="text-align: center;"><u>CONTENTS</u></p> <table><thead><tr><th></th><th style="text-align: right;"><u>Page</u></th></tr></thead><tbody><tr><td>ACKNOWLEDGEMENTS</td><td></td></tr><tr><td>PURPOSE OF MISSION</td><td></td></tr><tr><td>BACKGROUND</td><td></td></tr><tr><td>PROGRAMME OF MEETINGS</td><td></td></tr><tr><td>CONTINGENCY PLAN - STRATEGY</td><td></td></tr><tr><td>RESPONSE ORGANIZATION</td><td></td></tr><tr><td>REPORTS OF SITE VISITS</td><td></td></tr><tr><td>ANNEXES</td><td></td></tr></tbody></table>			<u>Page</u>	ACKNOWLEDGEMENTS		PURPOSE OF MISSION		BACKGROUND		PROGRAMME OF MEETINGS		CONTINGENCY PLAN - STRATEGY		RESPONSE ORGANIZATION		REPORTS OF SITE VISITS		ANNEXES	
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<p><u>NOTE:</u> The views expressed in this report are those of the Consultants and are not attributable in any way to the United Nations or the International Maritime Organization</p>																			
 <u>Signature of Consultant</u>	Date: 17/5/88																		
Consultant in Marine Oil Pollution	Duty Station: London																		



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Acknowledgements

The consultant wishes to record his sincere thanks to Rear Admiral Sajjad Akbar, Additional Secretary and Director General, Ports and Shipping Wing, Ministry of Communications and all his staff for the way he was received and for the assistance given in arranging the many meetings.

Mention must be made of the attention to detail and dedication by Captain I M Khan Samadani, Chief Nautical Surveyor and Captain Saifuddin Latif, Deputy Chief Nautical Surveyor, which facilitated the mission.

The consultant also offers his thanks to all those officials of Government Agencies and Private Companies (unfortunately too many to list) who made him welcome, devoting time to his visit, eagerly explaining their particular operation and honestly answering any questions.

PURPOSE OF MISSION

is report describes the visits, findings and recommendations of the consultant's three week mission to Pakistan.

terms of reference for the mission were to provide general advice to provide assistance in the following aspects of oil pollution, its control and clean-up.

- a) Identify sources of oil pollution and recommend steps that can be taken to reduce the possibility of oil spillage in Karachi Port, Port Qasim and Fish Harbour Developments.
- b) Formulate a National Contingency Plan.
- c) Identify possible surveillance agencies and reporting procedures.
- d) To specify type and holding of oil pollution containment and clean-up equipment at various locations, including budget costs.
- e) To examine the possibility of manufacturing some of the oil pollution equipment in Pakistan.
- f) Advise on training courses, educational books and literature and on International Assistance.

BACKGROUND AND PREVIOUS MISSIONS

wealth of valuable information and statistics can be obtained from several IMO and UNEP sponsored projects already concluded concerning coastal and harbour pollution in Pakistan. This report is a follow-up report to previous missions and outlines, in more specific terms, how Pakistan can instigate, maintain and improve their awareness in the continued fight against oil pollution.

PROGRAMME OF MEETINGS AND VISITS MADE BY MR S D MILTON

- Sunday 17th January am: Initial meeting with officers of the Ministry of Communications (Ports and Shipping Wing). During discussions a model featuring two designs of oil boom and pumping system was demonstrated.
- Meeting with Director General, Sind Fish Harbour Authority followed by a visit to Karachi Fish Harbour.
- pm: Working session with Ports and Shipping Wing.
- Monday 18th January am: Meeting with Rear Admiral Sajjad Akbar, Additional Secretary and Director General Ports and Shipping Wing, Ministry of Communications.
- Attended a meeting in the Committee Room of the Ports and Shipping Wing. Some seventeen members of various organisations reported on their activities related with oil pollution.
- pm: Visit to Pakistan Refinery Ltd., Korangi Creek Road.
- Tuesday 19th January am: A visit to the Port Qasim Authority was scheduled but had to be cancelled because of labour problems at the Port. An alternative meeting was arranged with Chief Hydrographer normally based at Port Qasim.
- pm: Tour of Korangi Creek fishing harbours at Ibrahim Haidari and Haji Ayub. Later a visit was made to the site of a new fish harbour being planned near the Abro spur.
- Wednesday 20th January am: Meeting with Principal Officer, Mercantile Marine department and Surveyors at their offices in Karachi Port Area.
- pm: Visit to National Refinery Ltd., Korangi, Karachi.
- Thursday 21st January am: All day visit to offices and the extensive works of Karachi Shipyard and Engineering Works Ltd.. Proposed that another meeting be arranged to discuss the design of floating oily waste reception barge.

Friday 22nd January Government Offices Closed.

Saturday 23rd January Government Offices Closed.

Sunday 24th January am: Visit to Gadani Beach the area where some eighty separate companies are engaged in ship breaking.

Monday 25th January am: Visit to Pakistan State Oil Terminal 'A' at Keamari followed by a tour of marketing Companies Distribution Trench, Keamari.

pm: Visit the Karachi office of the Pasni Fish Harbour to discuss new development of a small fishing port.

Tuesday 26th January am: Visit the new offices of Maritime Security Agency responsible to the Ministry of Defence.

pm: Working session with engineers of the Karachi Shipyard and Engineering Works Ltd.. Discussions at length concerning design and manufacturing of oily waste reception barges.

Wednesday 27th January am: Visit and discussion with the Chief Scientist and Principal Scientific Officer at the Sea View Laboratory of the National Institute of Oceanography.

pm: In the afternoon a visit was made to the National Institute of Oceanography Computer Data Centre in their Karachi office.

Thursday 28th January Visit Karachi Port Trust with launch tour of the port area. Inspected oil terminals. Visited tank farm compound of Pakistan Burmah Shell terminal at Keamari. Meeting with Chairman, Karachi Port Trust.

Friday 29th January Government Offices Closed.

Saturday 30th January - Government Offices Closed.

Sunday 31st January am: Visit and discussions at the offices of the Maricon Consultants Ltd., followed by visits to premises of private sector companies in and around Karachi Port Area. MAB Group of Companies: Marine Coordination Centre (PVT) Ltd.: Western Marine Engineering (PVT) Ltd.: Precision Rubber Products (PVT) Ltd.

pm: Bolton Market Area in Karachi.

Monday 1st February am: Visit to Karachi offices of Pasni Fish Harbour Project to meet the Managing Director. Meeting with Additional Secretary and Director General Ports and Shipping Wing of the Ministry of Communications. During this meeting I was introduced to Mr Rezaul Karim representing UN/ESCAP.

Tuesday 2nd February am: Meeting with Commodore in Chief of Pakistan Navy Dockyard Areas. Visit Karachi offices of Gwadar fish Harbour development for meeting with Project Director and Consultant.

pm: Meeting with Commandant of Pakistan Marine Academy followed by tour of the extensive facilities.

Wednesday 3rd February - All day visit to Port Qasim Authority including launch tour of the harbour area and inspection of the water outfall and intakes serving the steel mill and power station.

Thursday 4th February am: Working session with Deputy Nautical Surveyor.

pm: Final meeting with Additional Secretary and Director General Ports and Shipping Wing, Ministry of Communications.

Friday 5th February - Return to England.

CONTINGENCY PLAN - STRATEGY

Contingency Plan

The Ministry of Communications, Ports and Shipping Wing will be responsible for the overall plans to combat and clean up of marine oil pollution. The Ministry will establish a Marine Pollution Control Centre (MPCC) which will be the coordination centre for related activities.

They will be assisted by Marine Security Agency (MSA) who will have special responsibility for the Exclusive Economic Zone (EEZ).

Karachi Port Trust, Port Qasim Authority, Gwadar and other port developments will be responsible for initial response to marine oil spills in their own harbour limits with support from MPCC as required.

Oil contamination of the marine environment by effluents from shore based industry will also be the concern of the MPCC.

Assessment of Risk

To date there has been no major tanker accident off the coast of Pakistan although a huge tonnage passes well offshore from the Arabian Gulf Area in transit to India and the Far East. The most likely sources of oil pollution are from illegal discharge of bilges, ballast water, tank washing and general port operations. In the port area tanker movements are 3 or 4 per week in Karachi. Oils range from light crude through to high octane and aviation fuels. The most likely cause of spillage in these areas are as a result of routine operations such as loading, discharging and bunkering, plus the actual terminal structure and pipelines.

Areas of Special Risk from Oil Spills

High risk areas must be identified and a large map produced and on permanent display in the control room. This map will show - fish breeding grounds, mariculture, industrial water intakes, amenity beaches, water depths in meters and location of equipment.

Movement of Oil

Spillages in the main port areas are likely to be influenced by the tide but wind direction will have an effect on the final direction and speed of oil spread. Along the coast prevailing tidal flows will move the oil from west to east (clockwise) during March to November and in the opposite direction from December to February. Prevailing winds are onshore.

Priorities for Special Attention

These are to be determined and the priorities clearly shown on the map. Notes should be made of possible seasonal variations to priorities, such as breeding areas for fish and birds and the amenity beaches.

Selection of Equipment

Booms can be used around port installations and ships with collection by vacuum trucks or floating skimmers. Dispersant spraying can be used on spills offshore that threaten a previously identified sensitive area. Sacrificial beaches may be selected onto which oil can be directed for clean up.

Location of Equipment

Karachi and Port Qasim and other fish harbours should keep their equipment in their own port area. Equipment purchased by the MSA should, for the time being, be stored in the Naval Dockyard. When MSA's new base is operative all their stocks should be moved there. As MSA opens new depots along the coast, consideration should be given to holding small stocks of oil clean up equipment particularly at those located most distant from Karachi. Provision must be made to allow an interchange or loan of all equipment by each of the internal divisions of the overall plan in the case of a large incident.

Manpower

A specialist team of men should be trained in the use of all equipment, with backup personnel for extended shifts, holidays and sickness. When a large spill occurs extra manpower will be required for labour intensive operations such as shore clean up and movement of contaminated materials. A list of contractors from whom extra labour can be obtained should be available to the Operations Manager.

Disposal of Oil and Contaminated Materials

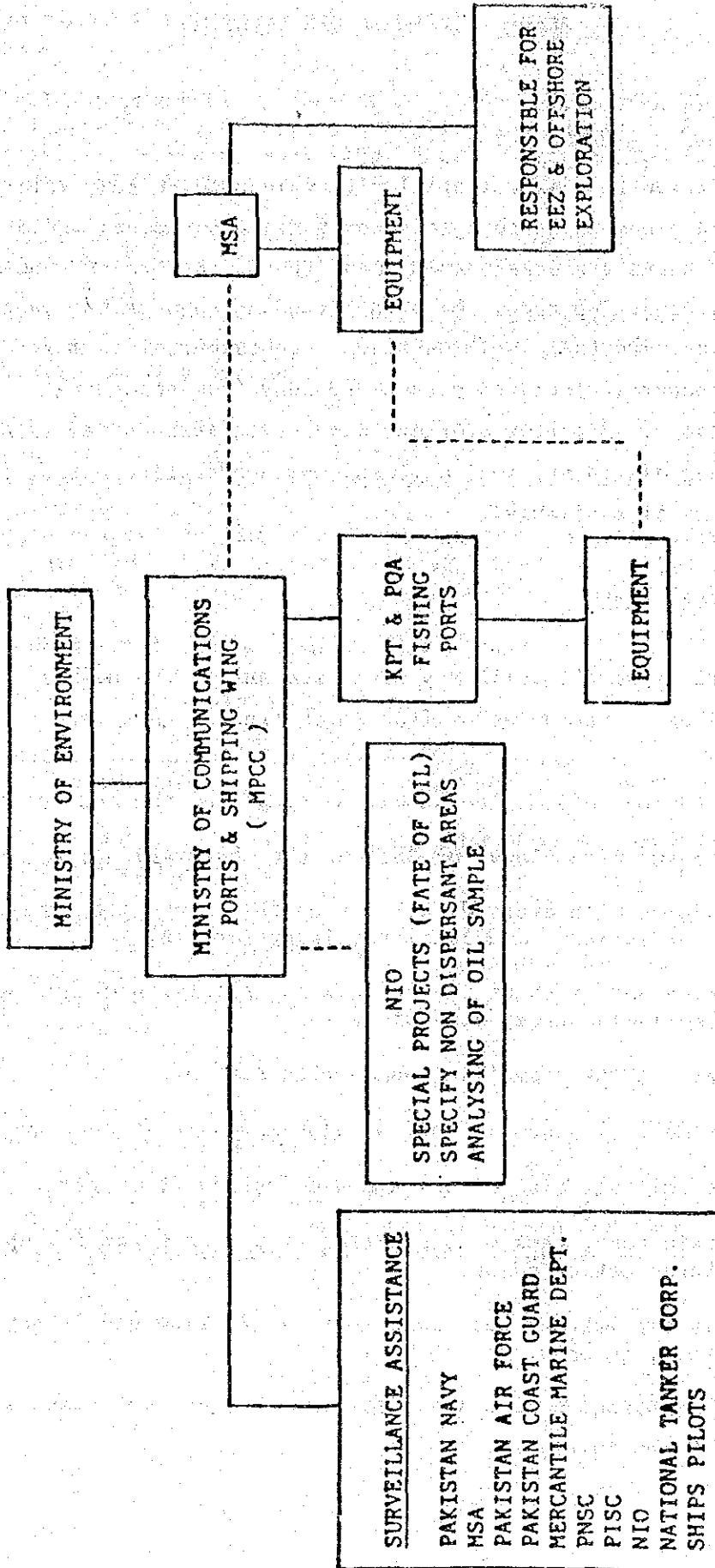
Pumpable oil should be collected in barges. At present Karachi Shipyard has 2 x 10 ton and 1 x 30 ton capacity barges. Onshore, temporary collapsible tanks will be effective near to the incident. Oil contaminated rubbish, seaweed and sludge, should be mechanically moved or manhandled into heavy gauge plastic bags and open top oil drums. A list should be established, of at least three contractors, with contacts and telephone numbers who are willing to remove either or both oil and sludge.

Preference to be given to contractors who will take all the oils and waste materials so that the number of different contractors at the scene of an incident is kept to a minimum. This list is to be available to the Operations Manager. Consideration should be given to incineration of oily wastes and the prior designation of safe inland dumping areas in collaboration with the Ministry of the Environment.

Strategy Flow Diagram: See Table 1

TABLE 1

STRATEGY PLAN



PLAN OF RESPONSE ORGANISATION

Communications

An operation room is essential with telephone, telex, telefax and full radio communications to connect all Departments and Sections whose reports are likely to be made to this centre and the method of this reporting should be established as soon as the centre is in operation. Portable communications are essential as most oil spills occur in isolated places and away from telephone connections. Repeater stations may be required to maintain contact over long distances, such as Pasni and Gwadar fish ports. (radio telephone if available).

The Operational Plan

A report of an oil spill may come from any of the normal surveillance procedures or from an independent source.

The following information should be sought by the control centre:

1. Date and time (local or GMT) of the observation.
2. Position with every detail for another person to locate. At sea latitude and longitude is preferable.
3. Source and cause of the pollution - collision or grounding, illegal discharge, name of vessels.
4. What are the prevailing weather conditions.
5. Estimate of amount of oil spilled and does it continue to flow.
6. Type of oil, size of slick and direction of movement.
7. Obtain name, rank or occupation of person reporting spill with return contact means.
8. What attempt has been made to stem oil flow and is any action already in hand.

Whilst questions 5 to 8 are important they are not essential for action to be initiated.

The Marine Pollution Control Centre should maintain information lists as follows:

- 1) Capital Equipment List, showing all items, with type, location, approximate size and weight, establishment number, number available, names and twenty-four hour contact points for trained personnel with backup.
- 2) Consumables list with similar information as above list and to cover such items as dispersant chemicals. Re-ordering procedure.
- 3) Sensitive location list with names, addresses and twenty-four hour contacts of key personnel. (for example, water intakes, fishing harbours, amenity beaches)
- 4) Surveillance and observation organisations list, showing office address with all communication methods complete with frequencies, call signs all on a twenty-four hour basis.
- 5) Emergency services list showing twenty-four hour call out procedures for; Fire Brigade, Hospital Services, Ambulance, Salvage and Insurance.
- 6) Land Maps and Nautical Charts, Tide Tables.
- 7) Weather forecast information list.
- 8) Mobilisation list, with all contacts to enlist help from other organisations holding equipment and trained personnel.
- 9) Services lists, all with first and second line twenty-four hour call out methods.

Oil Removal Contractors
Additional labour contractors
Emergency food suppliers
Temporary accommodation and hygiene facilities
Boat services
Road transport services

Much of the above information can be shown on a large wall map, covered with plastic so that the progress of a spill can be plotted and notes made concerning action. Areas unsuitable for dispersant spraying should be shown. A detailed diary of events, decisions and instructions must be kept. Remember oil spills will usually happen during a holiday weekend and accidents are more frequent at night.

Logistics Support

Pre-determined arrangements for providing food, protective clothing, shelter and medical support in case a large spill requiring a number of several days of concentrated effort to control and clean up. Consideration should be given to availability of additional materials and transport. Contacts and telephone numbers of possible sources of these services must be listed and kept up to date in the control centre.

valuation

On receipt of an oil spill report, the duty officer should at once alert the second in command then from the information received and the maps and data in the control centre determine expected spread and direction of flow.

Consider arranging an on site survey (using aircraft if major spill) or an experienced observer preferably located near the incident.

Identify threatened resources from already compiled map.

Notify urgently any high risk area or installation that may be affected by the spill giving estimated time and quantity of impact.

Obtain from site observer confirmation of original report plus information on type, specific gravity and viscosity of spilled oil. (sources of information, ships master, installation manager, salvor or harbour authority).

Estimation of spill size and likelihood of further spillage. (sources as above).

Response

If no key resources are threatened and the oil is moving offshore then no response may be necessary apart from monitoring the behaviour of the slick.

If key resources are threatened decide whether oil should be chemically dispersed, contained or deflected at once or whether to protect specific sites by booms or other measures. If protection is not feasible or installation has already been affected decide method and priority of clean up.

Clean Up Operations

Consult lists of available equipment and manpower and location with names and contacts for specialist operations and decide which to use.

Coordinator to give team leaders instructions to mobilise equipment including deployment of boom if required.

Organise sufficient logistic support such as temporary storage of collected oil and final disposal. Arrange for supply of dispersants if to be used, fuel, food and other consumables.

Call up air surveillance if considered necessary.

Select contractor or contractors to be prepared to remove collected oils.

Progressively monitor the progress of the oil and its clean up and be ready to modify action in the light of changing circumstances such as weather conditions.

Maintain accurate records of all decisions and timings, manpower and equipment deployed and materials used.

In the event that the magnitude of the spill proved to be beyond the capability of national resources, some sources of international assistance are listed at Annex A.