



**INTERNATIONAL COOPERATION FOR**  
**MARINE ENVIRONMENT PROTECTION IN**  
**SOUTH ASIA**

By  
**INDIAN COAST GUARD**

# **MARINE OIL POLLUTION**

- **The Environmental Threat**
- **Tanker Accidents**
- **Routine Tanker operations at Sea and Terminals**
- **Bilges and fuel oil – all ships**
- **Non-tanker accidents**
- **Dry docking – ship repairs**
- **Ship recycling**
- **Offshore Installations**

# ROUTINE TANKER OPERATIONS

- Associated with cleaning of cargo residues (clingage) during Ballast voyage
- Cargo operations in Terminals – oil spill
- Load on Top and slop tanks
- Discharge limitation standards – special areas
- Oil content Monitor and recorder
- Crude oil washing and clean ballast tanks
- Protective location and segregated ballast tanks
- Damage stability for collision and stranding – hypothetical outflow of oil
- Double Hulls
- Special requirements for HGO
- Port reception facilities

# CONVENTIONS HAVING A BEARING ON POLLUTION MANAGEMENT

- 1969 Intervention Convention
- 1969 CLC – 1992 Protocol
- 1971 Fund Convention – 1992 protocol
- 1972 Dumping Convention (LDC)
- 1972 INTERNATIONAL CONVENTION FOR PREVENTION OF COLLISION AT SEA (COLREG)
- 1974 SOLAS
- 1976 LLMC
- 1989 Salvage Convention
- 1990 OPRC - 2000 OPRC-HNS Protocol
- 1995 STCW
- 1996 HNS CONVENTION
- 2001 Bunker Oil Convention

# UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP) REGIONAL SEAS PROGRAMME

- Adopted in 1995 conducted in close cooperation with South Asia cooperative environment programme (SACEP) and funded under UNEP/IMO for development activities.
- IMO – SACEP project for development of regional (South Asia Seas) oil and chemical pollution contingency draft plan finalised with Bangladesh, India, Maldives, Pakistan and Sri Lanka.
- MoU for implementation taken up.
- Important features of plan are exchange of information / joint training and exercises / assistance in case of oil spill disasters.

# INDIAN CONTEXT

- Coastline of 7500 km
- 11 major, 20 intermediate and 144 minor ports
- 2.2m sq.km of EEZ
- 1100 MMTPA of oil demand from SEA, EA, Japan & China, mostly from PG in over 100,000 tankers per annum
- India imports approx. 90 MMTPA crude
- Few major oil spills in India

# INDIAN CONTEXT

- Directorate General of Shipping
- Merchant Shipping Act 1958
- Merchant Shipping (Prevention of Pollution of the Sea by Oil) Rules 1974
- Port Authorities
- Coast Guard
- Indian MoU
- SACEP (Protection and Management of Marine and Coastal Environment of South Asian Seas Region)
- Clean-up cost and liability enforcement

# MARINE ENVIRONMENT PROTECTION : A BACK GROUND

- OPRC adopted in 1990 by IMO
- Promulgated in 1995
- India accepted OPRC on promulgation

# OPRC CONVENTION PROVISIONS

- Designation of the competent national authority.
- National operational contact point for receipt of oil pollution reports.
- An authority to act on behalf of the state.
- A national contingency plan for preparedness and response.
- A minimum level of pre-positioned oil combating equipment commensurate with risk involved.

# OPRC CONVENTION PROVISIONS

- Exercises for oil pollution response and training of relevant personnel.
- Detailed plans and communication capabilities for responding to oil pollution incidents.
- Up gradation of data in regional and local contingency plan with up-to-date information.
- Risk assessment and first response capabilities accordingly by industries and ports.

# NATIONAL OIL SPILL DISASTER CONTINGENCY PLAN (NOS-DCP)

- India promulgated NOS-DCP in the year 1996.
- Approved by Committee of Secretaries to Government of India.
- Coast Guard designated as Central Coordination Authority.

# NOS-DCP OBJECTIVES

- Intended to delineate entire national preparedness and response system including both public and private resources for responding to oil spill emergency.
- Provides the basic framework and guidelines for a national response to a significant spill at sea.

# NATIONAL OIL SPILL DISASTER CONTINGENCY PLAN (NOS-DCP)

- Earlier MoD was nodal agency for coordination.
- Now MHA is the entity/nodal agency.
- NOS-DCP promulgated to all agencies after consent of MoSRT&H, MoPNG, MoES and MoEF during 1996.
- Updated up to 2006.
- Latest edition (2008) under preparation.

# NOS-DCP CONTAINS

- Duties of the ICG.
- Scope and objective of plan.
- Organisational structure.
- Reporting and alerting procedures.
- Assessment.
- Disposal of oil.
- Capabilities of resource agencies.

# TIERED RESPONSE CONCEPT – IMO CLASSIFICATION

- Tier 1 - Arrangements by the Individual ports and oil handling facilities to deal effectively with small operational spills. i.e. up to 700 Tons
- Tier 2 - The pooling of government or privately owned resources at a local level to respond incident which may exceed, either in size, complexity or due to its remote location.
- Tier 3 - Arrangements for a combined national or international response to a major oil spill that cannot be dealt with effectively under the tier ii arrangements. cooperative arrangements have been established between groups of oil companies for responding to such events.

# NOS-DCP RESPONSIBILITIES

- Port authorities responsible for action within port limits.
- Oil industries in and around their area of operation.
- Coastal State PCB for inter tidal zones, beaches and up to depth beyond which CG ships and craft cannot operate.
- Coast Guard responsibilities lies beyond port limits.
- DGICG has overall responsibility for appropriate response to oil spill incidents.

# NOS-DCP PROGRESS

- Industries and ports advised to develop and establish Tier-1 capability of oil spill response by end 2008.
- State PCB have been requested by the NOSDCP to prepare the contingency plans for their coastal waters for mitigating the effect of oil pollution.
- ICG maintains stockpile of PR equipment capable of combating oil spills up to Tier-2 level.
- MoU's between resource agencies being encouraged for pooling of resources and manpower.
- All Indian flag ships, oil handling facilities in ports, coastal oil refineries and offshore oil platforms operating in the maritime zones of India (MZI) will have onboard the coast guard approved oil pollution emergency plan by end 2006.
- ICG plans to develop its capabilities up to Tier-3 level of oil spill response.

# **INTERNATIONAL COOPERATION**

- India surrounded by seven maritime neighbouring countries.
- None have any specific oil spill response capability.
- Only India has Tier-2 capability.
- India progressing for multilateral agreement for South Asia region.
- Regional oil spill contingency plan under the auspices of SACEP for coordinating quick response in the region.

# NOS-DCP :RESEARCH AND DEVELOPMENT

- Formulated guidelines for use of oil spill dispersant.
- Formulated guidelines for inspection of pr equipment, contingency plan etc. for ports and resource agencies
- Associated with MoES for
  - (a) Development of oil spill modeling system
  - (b) Development of environmental risk assessment guidelines for oil spill management in coastal waters.
  - (c) Mapping of eco-sensitive areas.
  - (d) Development of data base on environmental parameters.

# TECHINAL CO-OPERATION

- ICG conducts frequent training programme for industry and port personnel.
- Conducts frequent mock drill and pollution response exercises to evolve common working/response philosophy and to maintain the response preparedness.
- Conducted IMO level-1 (equivalent) training programme for Sri Lanka and short courses for other neighbouring countries
- Conducts frequent exercises with neighbouring countries to fulfill the requirement of regional oil spill emergency plan.
- Effort in hand to undertake IMO level 2 and 3 training on oil spill response with assistance from IMO.

# TECHNICAL CO-OPERATION PROPOSED TRAINING UNDER SACEP

In order to enhance the regional capabilities in compliance with OPRC conventions following proposed:-

- Conduct of OPRC level – 2 and 3 course for supervisors and on scene commanders in the region.
- Regular regional seminar and workshop on
  - (a) implementation and enforcement of marpol 73/78.
  - (b) ship recycling.
  - (c) ratification and implementation of the international convention on OPRC–HNS protocol.
- Cross deputation of personnel for training / seminars/ workshops among South Asian countries to enhance coordination and cooperation.
- conduct of pollution response exercises with participating members in the South Asian region .

# ACHIEVEMENTS

With accreditation to OPRC and promulgation of NOS-DCP, ICG responded to

- 68 oil spill incidents in Indian waters.
- Claimed recovery charges worth Rs. 8.13 Crores towards cleanup cost.
- Provided assistance to the neighbouring countries in pollution response operations.
- Successful response operations confirm usefulness and efficacy of national oil spill disaster contingency plan.


# ACHIEVEMENTS

- Able to develop trained manpower oil spill response team within the organisation with sustained training and exercises.
- Motivated and pursued industries and stakeholders to develop response capabilities.
- Able to generate awareness amongst the stakeholders about preservation and protection of marine environment.

# ACTION FOR FUTURE

- Tightening Flag state Implementation
- Early ratification of other International Conventions
- Strengthening Port State Control
- Improving Owner's and Technical Manager's Management Standards
- Elevating Seafarer's Standards
- Enhancing Safety Culture in ship and terminal operations
- Ensuring contingency plans for coastal state for mitigation of oil spill effects in coastal areas
- Increasing effectiveness of Coast Guard
- Special Areas and PSSA for Indian Waters

**THANK YOU**

A vertical black flagpole with a brass finial stands against a deep blue, rippling sea. The Indian national flag, with its saffron, white, and green horizontal stripes and Ashoka Chakra, is partially visible on the pole. The text 'INDIAN COAST GUARD' and 'SENTINELS OF THE SEA' is overlaid in white, bold, sans-serif font at the bottom of the image.

INDIAN COAST GUARD  
SENTINELS OF THE SEA