

The Canadian Marine Oil Spill Preparedness and Response Regime





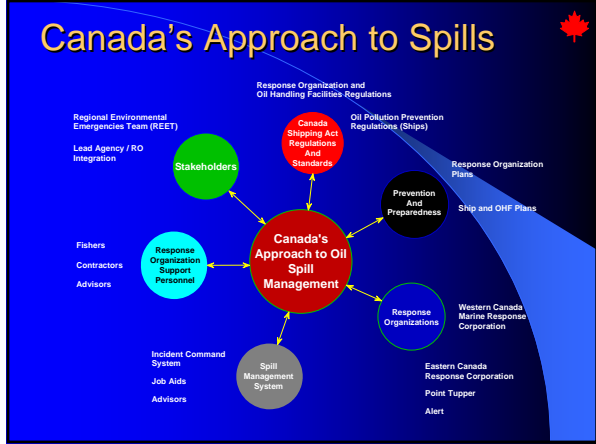





Canada's Approach to Spills

- Environmental Emergency Management is based on leadership, organization, teamwork, and shared responsibility
- Government / Industry partnership and shared responsibility
- Industry pays for preparedness (Response Organizations)
- Polluter manages and pays for the spill
- Response Organization provides the equipment and resources for the response
- CCG, as Lead Agency on water, monitors the response and becomes OSC if polluter is unable, unwilling, or unknown
- Province of BC, Environment Canada advise OSC on priorities through REET





Canada's Approach to Spills

Regulations and Standards

- Regulations and Standards made under the Canada Shipping Act (CSA) provide the framework for protecting Canada's navigable waters
- The regulations and standards dictate the requirements for Response Organizations, Oil Handling Facilities and ships (including tankers and tank barges) operating in navigable waters.
- Transport Canada enforces these regulations and standards through annual inspections and approval of plans.

Canada's Approach to Spills

By Law under the Canada Shipping Act

- The following must have an arrangement with a Response Organization in order to Operate in Canadian Waters:
 - Ships (non tankers) 400 GT and greater
 - Ships (tankers and barges) 150 GT and greater
 - Oil Handling Facilities transferring oil to or from the ships listed above.

Canada's Approach to Spills

Response Organizations

- Canada has 4 certified Response Organizations (ROs)
 - Two small ROs in Eastern Canada (each covering a harbour)
 - Two major ROs - One in Eastern Canada and WCMRC/BCO covering the West Coast

- ROs are certified by Transport Canada on a "3" year cycle

Government / Stakeholders

- Canadian Coast Guard acts as the Federal Monitoring Officer and Lead Agency for all "on water" spills
- Environment Canada and the Canadian Provinces act as the Lead Agency, if the spill originates from a land based incident
- Dept. of Fisheries, Parks, local city governments, Transport Canada, Native Bands, industry and local stakeholders form the "Stakeholder / Regional Environmental Emergency Team" (REET)

Canada's Approach to Spills

Responsible Party - Spill Management

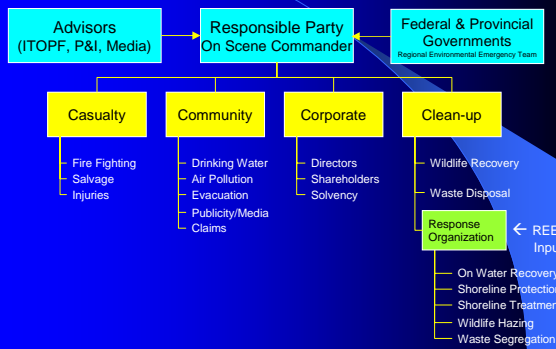
- The Responsible Party / Polluter will require one individual to step forward as the Incident Commander. They will be responsible for:
 - The overall management of the marine response
 - Approval of all plans and financial commitments on behalf of the polluter.
 - Management of the initial response (up to 6hrs.)
- To support the Responsible Party the RP can call on the:
 - Response Organization for spill management and hands on response
 - Regional Environmental Emergency Team and stakeholder group for priorities
 - Advisors on media, insurance and legal issues

Canada's Approach to Spills

Response Organization (R.O.) Guiding Principles

- ROs will provide members with "Regional " focused marine spill response that is prompt, cost effective and environmentally sound.
- R.O.s will conduct all our business activities in an ethical and socially responsible manner that safeguards the marine environment, and all of its inhabitants.
- Regulations and response standards arising from legislation, will be the foundation to define the equipment, personnel, training, management systems and exercise requirements for the Response Organization.
- There will be a network of pre-staged response equipment to meet the 10,000 tonne certification requirements ---- will always be in a ready state.
- Safety will always be # 1.
- Committed to the philosophy of continuous improvement.

Responsible Party/RO Relationship

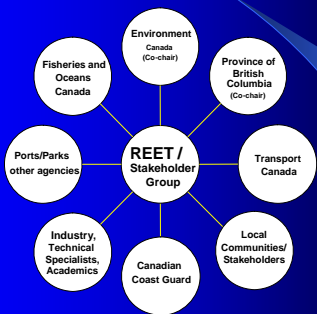


Canada's Approach to Spills

- The R.P. is responsible for establishing a Stakeholders / Regional Environmental Emergency Team (Unified Command) to ensure all voices being impacted are heard and issues considered in the response plans. May include:
 - Lead Agencies
 - Municipal governments
 - Parks
 - Dept. of Fisheries & Oceans
 - Ports
 - First Nations
 - Other emergency planning groups

Canada's Approach to Spills "Stakeholder Integration"

Regional Environmental Emergency Team (REET)



Canada's Approach to Spills

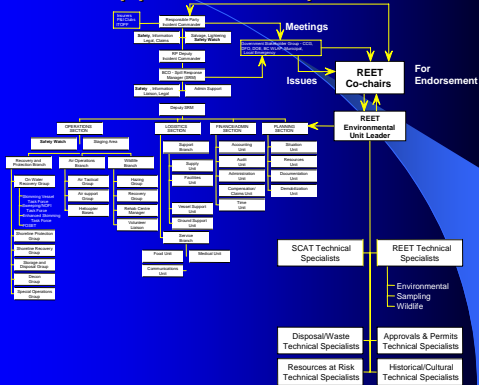
Stakeholders/ Regional Environmental Emergency Team (REET)

- Designed to provide consolidated and coordinated environmental advice.
- Will prioritize for the Responsible Party and/or Lead Agency the environmental, cultural, economic, property and human issues.
- Eliminates agency overlap and utilizes all resources to identify and prioritize "Resources at Risk"
- Local Stakeholders (E.G., First Nations, local municipalities, industry, Parks, neighbours) will join the REET to form the Stakeholders / REET group.
- Each member will voice and document their concern and hear all other concerns.
- Together they will set the priorities based on identified concerns.
- Can assist with any permits, mapping of spill trajectory, Shoreline Assessment, etc.

Responsible Party/RO Relationship

- **Response Organization Integration:**
 - May vary by response and Responsible Party.
 - May be asked to manage and fill some or all ICS roles, allowing RP to concentrate on Incident Command, casualty, financial concerns, community impacts and corporate communications.
 - May be asked to manage the on-water response/ operations portion of the spill under the direction of the Incident Commander.
 - May be asked to coach selected roles and fill other roles.
- **Key Service provided by the WCMRC/BCO:**
 - Knowledge of government agency expectations and relationships.

Canada's Approach to Spills



WCMRC's Approach to Spills

Spill Response Common Objectives

1. Ensure the Safety of the Public and Response Personnel.
2. Control the Source of the Spill.
3. Manage a Coordinated Response Effort.
4. Maximize the Protection of Environmentally Sensitive Areas.
5. Contain and Recover the Spilled Oil/Material.

Spill Response Common Objectives

6. Recover and Rehabilitate Injured Wildlife.
7. Remove Oil from Impacted Shoreline Areas.
8. Minimize Economic Impacts.
9. Keep Stakeholders Informed of Response Activities.
10. Keep the Public Informed of Response Activities.

Western Canada Marine Response Corporation / Burrard Clean Operations



BACKGROUND

- BCO was founded in 1976 by the four major oil companies and a pipeline company as a co-op for Vancouver Harbour.
- In 1995 the Canada Shipping Act was amended to include regulations and standards to protect all navigable waters and placed restrictions on tankers, barges, non bulk carriers, and on oil handling facilities operating in Canadian navigable waters.
- With the implementation of these changes, WCMRC was established to ensure a state of preparedness for all western navigable waters, including the Port of Vancouver.
- Burrard Clean Operations (BCO) became a division of WCMRC and fulfills the role of field response operations for the company.

Burrard Clean Operations

Canada's West Coast Response Organization



- Certified by Transport Canada on a 3-year cycle
- All tankers over 150 GRT and ships over 400 GRT must have an arrangement with BCO (under the CSA)
- All Oil Handling Facilities (OHFs) transferring oil to or from the ships listed above, must also have an arrangement



Burrard Clean Operations

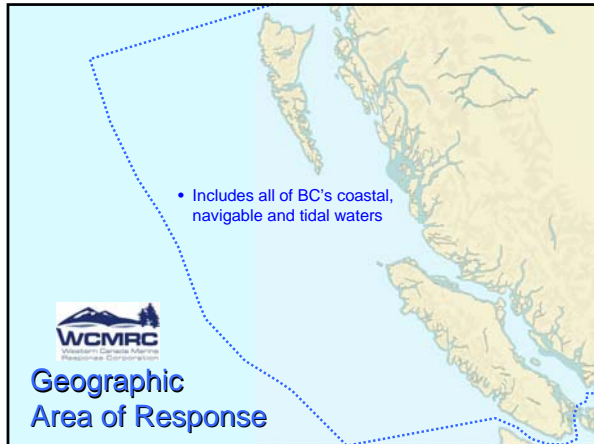
Canada's West Coast Response Organization



WCMRC/BCO's customer base is approximately 1820 members:

- Oil Companies
- Tankers
- Barges
- Freighters
- Ferries
- Cruise Ships
- Oil Handling Facilities





Resources - People

- A key component of the Response Organizations network is a well-trained, professional staff and contractor network
- WCMRC/BCO has 24 contractor and 31 advisory agreements in place
- Located across the coast of British Columbia
- Their knowledge and experience ensures a quick, safe and effective response to spills
- 100+ contractors trained/exercised with WCMRC/BCO last year

Resources - People

- Another key component of BCO's marine coastal response capability is the Fishermen's Oil Spill Emergency Team (FOSET)
- 100+ vessels and crew
- Located throughout the province
- 200+ fishermen trained/exercised with BCO last year

Resources - Equipment

- BCO's response equipment includes the latest-available technologies from around the world
- Oil recovery capacity approximately 10,000 tonnes
- Vessels, booms, skimmers, transfer pumps and storage have been selected for use in BC waters
 - Sheltered
 - Unsheltered
 - Shorelines (urban and remote)
 - Ports



Resources - Equipment

- WCMRC/BCO operates 21 vessels, ranging from small skiffs to the largest dedicated oil skimming vessel in Canada
- WCMRC/BCO barges are used for work platforms and/or temporary storage of recovered oil



WCMRC/BCO has:

- Head office/warehouse in Vancouver
- Regional office on Vancouver Island (proposed office for the North Coast)
- A mobile command centre/office
- 40+ equipment trailers & 21 vessels located throughout the province



Canadian Coast Guard also has numerous equipment depots throughout BC

Resources - Equipment



Offshore Capability



- Together, Government and Industry have the resources in place to respond and manage most ship-source spills
- Weather and logistics will dictate the type and effectiveness of a response



Offshore Capability



- Depending on weather conditions, CCG and BCO can operate with a number of response vessels:
 - CCG vessels
 - Tugs and barges
 - Skimming vessels
 - 100+ FOSET vessels
 - Contractor barges with CCG and BCO VOSS equipment
 - Mutual Aid partners



BCO Offshore Capability



- BCO's equipment includes
 - 5,000 ft of Kepner boom
 - 2,400 ft of Ro-boom
 - A NOFI 1000 V-Sweep system
 - Numerous portable skimmers (disc, drum, brush, rope mop, weir)
- ICP equipment includes
 - Section FOGs
 - Display boards
 - 3 sets in trailers (3 geographic areas)

Coastal Plans

- The Response Organization in collaboration with government agencies have developed "8" Area Plans that cover the west coast of Canada

Each Plan describes:

- Area sensitivities
- Location of Incident Command Post
- Local contacts
- Staging areas / Helispots
- Vessel launch locations
- Coastal Mapping
- Protection / treatment strategies
- Equipment resources in the area
- Logistical support services



Exercises

- BCO Certification exercises:

- Annual
 - 150 tonne equipment deployment
 - 1,000 tonne table-top – scenario
- Every 2 years
 - 2,500 tonne equipment deployment
- Every 3 years
 - 10,000 tonne table-top – scenario

- BCO Participates in:

- Member exercises
- Annual Coast Guard CANUSPAC and CANUSDIX
- Cross-border/Mutual Aid exercises



Partnerships

- BCO has developed partnership arrangements with a number of government and non-government agencies

- Canadian Coast Guard
- Transport Canada
- Chamber of Shipping of BC
- Environment Canada
- Province of BC
- WSMC
- BC Port Authorities
- Clean Sound/MSRC (Wa. State)
- Eastern Canada Response Corp.
- Dept. of National Defence
- Oiled Wildlife Society of BC
- Association of Petroleum Industry Co-ops



How do we work together?

- To meet the challenge of responding effectively, Government and Industry must be willing:
 - to work together as a single Incident Management Team;
 - to co-locate and integrate at an Incident Command Post and into an Incident Command Organization
 - to apply the Incident Command System organization protocols
 - to include a stakeholders group in the management team

How do we work together?

- To meet the challenge of responding effectively, Government and Industry must be willing (cont.):
 - to share resources (people, equipment, technology);
 - to work according to a single Incident Action Plan that provides the overall response objectives/strategies;
 - to provide a common message about the situation and response progress to media and their respective policy groups



Offshore Oil and Gas

- Present model is designed for ships and oil handling facilities, not offshore oil
- Government, Industry and the Public need to understand the risks
 - Oil types - fate and effects?
 - Typical successful recovery is only a portion of the total oil spilled
 - Crude oil occurs naturally and seeps are found throughout the world's oceans
 - Oceanographic and sensitivity models
 - Blowout prevention technology
- Develop realistic spill scenarios based on risks and sensitivities

Offshore Oil and Gas

- Review world standards for offshore preparedness and response resources
 - Norway, North Sea
 - Canada's east coast
- Review current vs. required response resources
 - Industry resource requirements
 - RO resource requirements
 - local resources
- Approval of in-situ burning and dispersants as response techniques

Questions?
