Bella Bella – Denny Island
Emergency Response Plan

HAZARD ANNEX – MARINE ACCIDENT & DANGEROUS GOODS SPILL RESPONSE PLAN

Central Coast Regional District
&
Heiltsuk Nation

Updated by Frontier Resource Management Ltd
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Hazard Annex – Marine Accident & Dangerous Goods Spill

Table of Contents

1 Marine Accident & Dangerous Goods Spill Contact List ____ *3*

2 Introduction ____ *3*

2.1 Response Process ____ **4**

3 Initial Response ____ *5*

4 Human Threat ____ *5*

4.1 Large Passenger Vessel Accident ____ **6**

4.2 Community Evacuation ____ **6**

5 Release of Hazardous Materials ____ *6*

5.1 Initial Response Precautions ____ **7**

5.2 Local Hazardous Materials ____ **7**

5.3 Hazardous Material Handling, Storage and Safety Information ____ **8**

1 Marine Accident & Dangerous Goods Spill Contact List

- See **Bella Bella/Denny Island EOC call out lis**t
- Marine Emergency : 1-800-567-5111
- Coast Guard – Denny Island: 250-957-5706
- DFO - Bella Bella: 250- 957-2363
- Western Marine Response: 1-855-294-9116
- Shearwater Marine: 250-957-2305
- Lama Pass Fuels: 250-957-2440

Reported incident requiring coordinated emergency response contacts:

Local Emergency Team (LET) - Denny Island Deputy EPC
- Heiltsuk Emergency Coordinator

Emergency Executive Committee – Coordinator
- CCRD Rep
- Secretary
- Heiltsuk Rep
- Nuxalk Rep

Emergency Response Core Team - Communication Officer
- Public Information Officer
- ESS Officer

Emergency Response Operations – Coast Guard
- DFO
- Fire Halls

If dangerous goods involved, initiate call out to residents/boaters in danger zone.

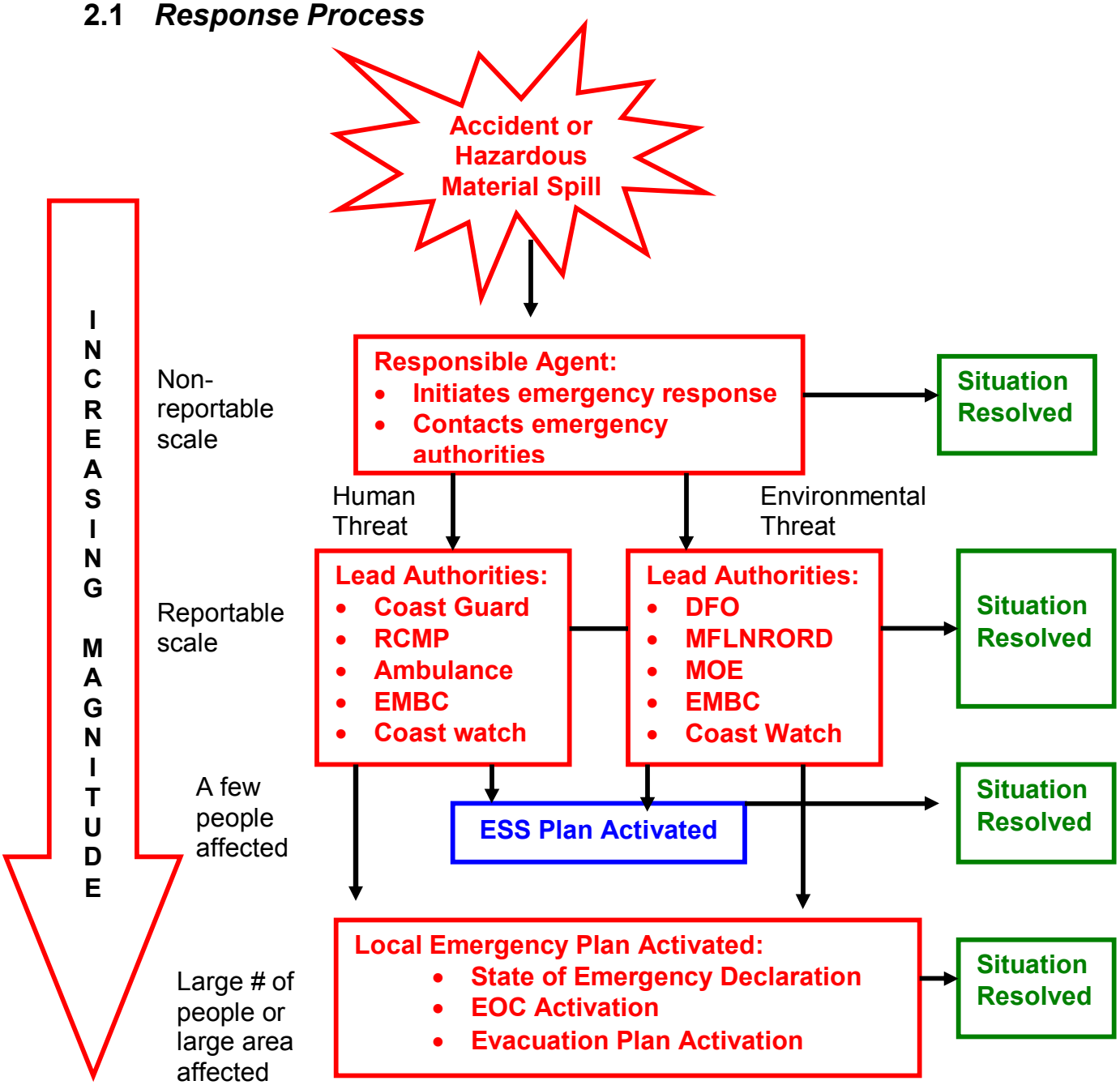
2 Introduction

There is much marine traffic passing by Bella Bella and Denny Island every day and a marine accident may involve a large number of people and/or release of large amounts of hazardous materials and fuel. The Bella Bella / Denny Island Emergency Response Plan would be activated if:

- evacuation is required,
- large numbers of people are injured or affected or

- response requires significant coordination of multiple resources and organizations.

2.1 *Response Process*



Marine carriers handling passengers or hazardous materials are responsible to ensure all required safe guards and handling procedures are followed and that they have the required emergency response equipment available. Those in charge are responsible to take initial action in case of an emergency and to notify the appropriate authorities immediately.

3 Initial Response

When distress information is received:

1. Notify Coast Guard and Marine Emergency responders, if not already done
2. Determine scale of accident and whether emergency response plan needs to be activated and if EOC needs to be established.
3. Activate EOC call out procedure
4. Marine based agencies (Navy, Coast Guard, DFO, RCMP) are in charge of marine operations
5. Initiate call out to capable local boats to stand-by, or deploy, to assist with rescue/containment.
6. Assisting vessels to report to Coast Guard or agency in charge.
7. Contact Western Canada Marine Response Corp and Shearwater Marine to initiate mobilization of containment and clean up services
8. Activate ESS and establish reception center.

For a local marine accident, the Coast Guard Station on Denny Island will likely be requested to respond. Federal and provincial agencies with marine equipment will be notified and many commercial watercraft owners will be recruited to assist. The Bella Bella fuel dock and Shearwater Marine are the logical sources of contact information for commercial watercraft owners.

4 Human Threat

A large marine accident can threaten lives and health in a number of ways:

- Fire and explosion on vessels
- Drowning of crew and passengers
- Stranding of crew and passengers
- Exposure to hazardous substances
- Evacuation of nearby communities
- Loss of sustenance food sources.

For life or health threatening emergencies the local Coast Guard or RCMP will usually take initial charge of the situation. Any accident involving multiple person rescue, injuries or casualties will require a coordinated response between Bella Bella/ Denny Island Emergency Program officials, Coast Guard, RCMP, Armed Forces SAR, Coastal Guardian Watchmen, BC Ambulance, local volunteers and the RW Large General Hospital.

4.1 *Large Passenger Vessel Accident*

An accident involving a cruise ship or a large ferry will be challenging for the Bella Bella and Denny Island communities as support services would be quickly inundated. Rescue would likely require the recruitment of a large number of capable local vessels which would require coordination. Once ashore, victims would require first aid, food and shelter, thus necessitating the need for ESS support. The Bella Bella hospital's emergency plan has contingencies that may require establishment of a reception centre at the Bella Bella School to deal with minor injuries and support for non-injured persons. In the early stages of EOC initiation the decision to establish such a reception centre must be addressed with priority. Other large vessels may also be called upon for assistance and, depending on passenger load, other passenger vessels may be used as ESS reception centres if required.

Dealing with a large number of non-resident victims will be challenging as these people would not have emotional support of family and friends. Psychological support and counselling may be required from the onset.

4.2 *Community Evacuation*

An accident in close vicinity to the communities, or at the dock, involving dangerous goods may require rapid evacuation. Release of noxious gases or risk of explosion would demand immediate evacuation of the affected area. This would necessitate the immediate activation of the Evacuation Plan.

5 Release of Hazardous Materials

Because the Bella Bella/Denny Island Communities are located along the inside passage marine transport corridor that is used by cargo vessels to move large quantities of products to the North Coast and Alaska, the threat of a spill is real. As the majority of the community's populations are situated near the waterline this creates a particular vulnerability to the impact of hazardous materials spills. Hazards from any spill will include contamination of the environment, toxic exposure to humans and animals, and explosion and fire. There may also be temporary disruption of travel, and interruption of phone and power lines. Containment of the hazard will be a priority, and evacuation may be necessary.

For emergencies posing an environmental threat, government agencies like Department of Fisheries & Oceans, Ministry of Forests, Land, Natural Resource Operations and Rural Development and Ministry of Environment may also initiate action. Notification to EMBC is mandatory for spills greater than established limits (see Section 5.3) and depending on the scale of the emergency will initiate response accordingly.

Shearwater Marine acts as an agent for Western Canada Marine Response Corporation, an organization that specializes in hazardous materials response. Contact Shearwater Marine and WCMRC simultaneously to ensure a rapid response to any spill.

5.1 *Initial Response Precautions*

Dealing with hazardous materials can be very dangerous. Sparks can ignite flammable materials, noxious fumes and gases can overcome emergency worker causing debilitating and potentially fatal consequences. **Only people trained in handling hazardous materials should attempt containment and clean up**. Other, non-trained, emergency workers should make sure the area is clear and that no other people enter the danger zone.

Before deploying containment and clean-up crews, Incident Commander/ EOC Director needs to quickly:

1. Evaluate hazards – what are the risks to people, property and environment?
2. Identify and evaluate potential problems that may be encountered during control, containment and clean up.
3. Refer to Material Safety Data Sheets for the material spilled for instructions on danger, treatment and cleanup method.

The Heiltsuk Fire Department and staff at Shearwater Marine should be consulted before any other personnel attempt spill cleanup or enter into contaminated areas. The RCMP should be notified to provide a safe perimeter in the event that the population at large needs to be restrained from accessing a contaminated area.

RW Large General Hospital should be alerted to the fact that injured persons may be expected and that hazardous materials are involved. Emergency medical personnel must also take precautions when dealing with exposed individuals.

If contaminated clothing, vehicles or other articles are moved from the initial spill area, efforts must be taken to collect such contaminated items and store them in a safe and appropriate manner to prevent secondary exposure to potential toxins.

5.2 *Local Hazardous Materials*

The Bella Bella/Denny Island communities are not heavily industrialized, so the risk of a large chemical release or explosion occurring within the community is reasonably low. The main threat of hazardous materials is

fuel stored at the fueling facilities at the Bella Bella dock and at Shearwater. These two fuel providers have their own emergency procedures and containment supplies.

Use of explosives is limited and primarily related to logging road construction and occasional major works projects. Vendors using explosives are required to follow strict rules for storage, record keeping and magazine facility standards. The potential for other explosions are primarily related to fuel transport or storage facilities like Fuel tank farms at the harbour or fueling stations. A propane explosion is also a possibility as there are a number of homes that rely on propane for heat. Except for an explosion at the harbour or on the Bella Bella town site, an explosion would likely not affect more than one or two structures. Fire may also be initiated by the explosion.

5.3 *Hazardous Material Handling, Storage and Safety Information*

Hazardous materials are regulated through a number of programs – Work Hazardous Material Information System (WHMIS) and Transportation of Dangerous Goods (TDG).

Information on these programs can be found at the following web sites:

www.hc-sc.gc.ca/hecs-sesc/whmis/

www.tc.gc.ca/tdg/menu.htm

Spills that must be reported to the Provincial Emergency Program in accordance with the Spill Reporting Regulation under the Waste Management Act:

Product	Major Level (report to PEP)
Pesticides	1 kilogram
Antifreeze	5 litres
Power train oils	100 liters
Operating oils	100 liters
All fuels	100 liters
Solvents	100 liters

The following information provides a snapshot of the Workers Hazardous Materials Information System (WHMIS) and the Transportation of Dangerous Goods (TDG) requirements.

REFERENCE GUIDE FOR WHMIS

The 3-step snapshot to understanding WHMIS

Class A: Compressed Gas

Class B: Flammable and Combustible material

Class C: Oxidizing Material

Class D: Poisonous and Infectious Materials

Class E: Corrosive Material

Class F: Dangerously Reactive Material

➢ Understand the symbols

- The symbol is a visual reminder of what type of substance you will be handling
- Symbols are found on Labels and MSDS.
- Some examples of the classes you might encounter in the forest industry are:
  - Oxygen and Acetylene (Compressed Gas)
  - Gasoline and Diesel (Flammable/Combustible)
  - H2S gas from Sour Gas wells (Poisonous material)
  - Battery Acid (corrosive materials)

➢ Recognizing Labels

- Labeling (by Suppliers or Employers) is required on hazardous substances
- Labels are the **first indicator** to the worker that they are dealing with a hazardous substance
- Labels must contain the following information:
  - Identification of the substance (eg. Diesel Fuel)
  - Hazard symbol of the substance
  - Precautionary and First Aid measures
  - Reference to Material Safety Data Sheets (MSDS)
- Types of Labels
  - Supplier – generally an adhesive label attached before shipment
  - Workplace – often a plastic tag attached by a wire or plastic tie to the container by the employer
  - Hand written – writing of the product name by the worker when the substance is dispensed for their individual use.


SHELL DIESELINE/CARBURANT DIESEL SHELL DIESELINE 322-110
SHELL DIESELINE MARKED/CARBURANT DIESEL SHELL DIESELINE COLORÉ 325-111
SHELL KEROSENE/KEROSENE SHELL 301-101

HAZARDS
Combustible Liquid
Irritating to Skin

AVERTISSEMENT
Liquide combustible
Cause une irritation de la peau

SAFE HANDLING
Eliminate all ignition sources.
Wear suitable gloves and eye protection.
Avoid prolonged exposure to vapours.
Empty containers are hazardous. May contain flammable explosive liquid residue or vapours. Keep away from sparks and open flames.

PRECAUTIONS
Éliminer toutes les sources d'inflammation.
Porter des gants de sécurité et des yeux appropriés. Éviter d'être exposé de façon prolongée aux vapeurs. Les contenants vides sont dangereux. Ils peuvent contenir des vapeurs ou des résidus liquides inflammables explosifs. Tenir loin des étincelles et des flammes nues.

FIRST AID
Wash contaminated skin with soap and water.
Flush eyes with water.
If overcome by vapours, remove to fresh air.

PREMIERS SOINS
Laver la peau atteinte à l'eau et au savon.
Rincer les yeux à grande eau.
En cas d'inhalation des vapeurs, transporter la personne incommodée au grand air.

SEE MATERIAL SAFETY DATA SHEET FOR FURTHER DETAILS
POUR DE PLUS AMPLES RENSEIGNEMENTS, CONSULTER LA FICHE SIGNALÉTIQUE DE CE PRODUIT

SHELL CANADA LIMITED
SHELL CANADA LIMITÉE
400 - 4th AVENUE S.W.

➢ Knowing how to use **Material Safety Data Sheets (MSDS)**

- An MSDS is a written bulletin issued by the supplier providing specific information about the hazardous substance
- MSDS will contain the following information
  - Product Name
  - Hazardous ingredients
  - Physical data
  - Fire and Explosion hazard
  - Reactivity data
  - Toxicological properties
  - Preventative measures
  - First Aid measures
  - Preparation information
- An employer must make the Material Safety Data sheets available to the workers, and provide time for them to read the information before commencing work


CANADIAN
Material Safety Data Sheet

0.05% SULFUR DIESEL FUEL

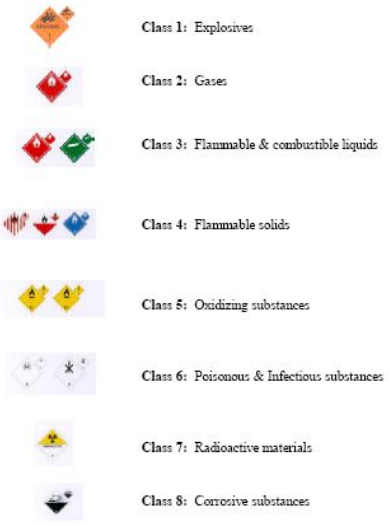
A. Product Identification

B. Hazardous Components

C. Personal Protection Information

REFERENCE GUIDE FOR
TDG (Transportation of Dangerous Goods)

The 4-step snapshot to understanding TDG



- Symbols
  - The symbol is a visual reminder of what type of substance is being transported
  - Symbols are found on Labels & Placards
  - Some examples of the classes you might encounter in the forest industry are:
    - Class 1 – Blasting materials (Explosives)
    - Class 2 – Oxygen, Acetylene, Propane (Gases)
    - Class 3 – Diesel, Gasoline, Solvents (Flammable & Combustible liquids)
    - Class 6 – Solvent compounds, paint removers (Poisonous substances)
    - Class 8 – Battery acids (Corrosive substances)

- Safety Marks
  - Safety Marks are the **first indicator** to the worker that they are dealing with a dangerous good when approaching a container or vehicle load
  - Types of Safety Marks
    - Labels – small diamond shaped marks generally found on smaller containers (i.e. oxygen bottles)
    - Placards – large diamond shaped marks generally found on larger containers or on loaded vehicles transporting dangerous goods
  - Safety Marks will contain the following information:
    - Symbol of the dangerous good (i.e. a flame)
    - Class of the substance (i.e. Class 3)
    - Shipping Name (i.e. Gasoline)
    - PIN (product identification) number (i.e. UN 1203)
  - Use of Safety Marks
    - Whenever a dangerous good is transported
    - When used on larger loads, placards are generally attached at 4 corners of the load vehicle
    - Placards are even required when containers or tanks are empty

- Documentation
  - Class 3 substances (Diesel, Gasoline) generally do not require a shipping document unless the container size is 2000 liters or larger
  - Used oils (generated by the contractor) are not classified under TDG regulation
  - If a shipping document is used, it must contain the following information:
    - Document number
    - Date of shipment
    - Signature of the shipper
    - Shippers name and address and 24 hour contact number
    - Receivers name and address
    - Carriers name
    - Name, Class, PIN, Packing group, and volume of product being shipped
    - Type and number of placards used

- Emergency Response
  - When spills or leaks exceed the quantities listed, it must be reported to:
    - The Police
    - The Employer
    - The Vehicle owner
  - The owner of the goods

Rules to remember for TDG

1. **Use the right container**
2. **Keep the container capped**
3. **Label the container**
4. **Secure the container in an upright position when in transport**
5. **When unloaded, protect from collision**