

Local Authorities' Guide

What to do

in the event of a spill?



OPERATIONAL GUIDE

ARCOPOL



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Guide produced by the Centre of Documentation, Research and Experimentation on Accidental Water Pollution (*Cedre*) within the framework of the European project ARCOPOL, with financial support from the regions of Aquitaine and Brittany.

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The information contained within this guide is a result of the research and experience of *Cedre*. *Cedre* cannot be held responsible for the consequences resulting from the use of this information.

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Cover photo: marking out a clean-up site with barricade tape and protecting access routes. Source: Cedre

Purpose of this guide

When an accidental water pollution incident occurs, the local authority, as Director of Emergency Operations for the municipality, is suddenly propelled into a role as the decision-maker, in a field it knows little of, amidst a crisis situation.

This guide aims to give this authority keys to decision-making in the event or threat of a spill of pollutant liable to reach the banks or shoreline of his municipality: crude or refined oil, hazardous and noxious substances, drums, containers, or stranded mammals, oiled birds, waste...

This guide is divided into two parts:

- The first is intended for local authorities. A series of Questions

and Answers describes the regulatory context of response. It is followed by a series of "What to do?" reflex cards, operational reference sheets on the initial actions to be taken to respond to the most common types of spills.

- The second part is intended for the various crisis actors: councillors, municipal agents and officers. This section, composed of practical datasheets on each aspect of response - alert, assessment, safety, clean-up, communication, finance, feedback -, constitutes a "toolbox" to enable these actors to successfully carry out their role. It is concluded with a directory, listing the organisations liable to provide them with support.

Another key to using this document: helping to establish the

Oil Spill Contingency Plan









In order to be ready to respond the day a spill occurs, municipalities should prepare themselves in advance. To do so, they have a tool, the Oil Spill Contingency Plan (OSCP).

The datasheets presented in this guide are designed to be adapted by each municipality to integrate this plan:

- The "What to do?" reflex cards specify the initial emergency actions.
- The assignment sheets outline the aims, actors, equipment and successive actions to be taken for each of the key stages of response.
- Finally, the tool sheets, forms and reference sheets, are intended to be duplicated to constitute practical field materials.

"The OSCP" boxes specify the actions that can be taken by municipalities, for each theme addressed, to anticipate spill response.

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*Photo opposite: a local councillor
visiting a clean-up site. Source Cedre*



A Local Authority's Guide

Regulatory context

- On what grounds is the local authority responsible for responding to a spill? 
- What is the territorial field of application of the local authority's police power? 
- When does a higher authority take over coordination of emergency operations? 
- What becomes of the local authority's role when the higher authority has taken over coordination of operations? 
- What human and material resources are available to the local authority to conduct response? 
- Who can assist the local authority in making the right decisions? 
- Who finances response operations? 

On what grounds is the local authority responsible for responding to a spill?

Generally speaking, the local authority is responsible for ensuring public order, security, health and safety. In this respect, it is required to prevent, by taking suitable precautions, and to stop, by implementing the necessary emergency response, all types of pollution, to provide all types of emergency measures and, where need be, to seek the involvement of the higher authority.

Checking the regulatory reference texts defining local authorities' powers in the corresponding national context is needed.



Arrivals of oiled biscuits, MSC Napoli spill



A local authority must:

- Ensure the population's safety.
- Inform the competent State authorities.
- Direct response on land and in the authority's areas of competence (e.g. municipal ports in France)
- Not respond at sea without having placed the action under the responsibility of the competent maritime authority.

What is the territorial scope of the local authority's police power?

In coastal areas, the local authority may exert its police power to different extent depending on the country of reference. The regulatory reference text defining the powers of the local authority must be checked in advance to identify the territorial scope of the local authority's power. In particular, specific cases of sites placed under its responsibility need to be identified (e.g. municipal ports in France).

Similarly at sea, the powers of the maritime authority must be clear,

identifying specific cases of interface areas in which the land authorities may also hold or be delegated authority.

Some municipalities may be equipped with nautical resources to mark out area and ensure safety on the water. Pollution response on water generally comes under the responsibility of the maritime authority. If the local authority's resources can contribute to inshore response, they should be placed under the responsibility of the maritime authorities.

When does a higher authority take over coordination of emergency operations?

The organisation of pollution response relies upon a global organisation at national level. Within this organisation, the local authority is responsible for operations conducted within its municipality:

- as soon as a major event occurs within its area of responsibility.
- in as far as it has the resources to deal with it.
- as long as the event does not exceed the municipality's boundaries.

The local authority is the Director of Emergency Operations as long as the higher authority does not take over responsibility. This may be the case:

- when the municipality's response capacity is exceeded.
- when the extent of the pollution requires it, due to the danger presented, the sensitivity and length of coastline affected, the quantity of pollutant spilt, the consequences of the event or any other factor requiring the involvement of the State representative.
- if no action is taken by the local authority.

Past experience of accidental water pollution has shown that higher authorities and State representatives consider each situation on a case by case basis. Generally speaking, the notion of the response capacity of the affected municipality takes precedence over the extent of the disaster, and in particular the number of municipalities, or even districts or regions, affected. If the pollution affects several municipalities, even if in principle each local authority remains responsible for operations within its municipality, the higher authority may coordinate certain aspects of response, such as relations with the polluter, media communications, waste treatment or aspects related to compensation claims or finances.

What becomes of the local authority's role when the higher authority has taken over?

In general, the local authority must submit to the orders of the higher authority, providing it with human resources (technical staff for field operations, administrative agents for the Command Centre...) and equipment from the municipality (infrastructures, response equipment, potential storage areas...).

This collaboration is detailed in the national contingency planning and other related texts.

What human and material resources are available to the local authority to conduct response?

Municipal means

The municipality

Response to small spills first draws upon the local authority's own resources. It generally involves simple operations, which can be conducted by municipal staff. The equipment (barriers, shovels, buckets, skips, tarpaulins...) is mainly available within the municipality.



Beach clean-up following the Happy Bride spill

Inter-municipality cooperation

When several municipalities decide to pool their response means (human resources and equipment), one of these municipalities, in the event of pollution, may call upon the services of one of the other affected municipalities for:

- The management of an aspect of response, such as waste management (storage at waste reception centre, identification of disposal channels).
- The provision of human resources (beach clean-up, recordkeeping...).
- The provision of equipment (skips, power shovels...).

When several municipalities are affected, the pooling of resources can have its limits. It is therefore recommended that, prior to the pollution, the terms and conditions of the allocation of these means be defined and their mobilisation be anticipated through joint response plans.



In certain cases, inter-municipality organisations may be authorised to coordinate the preparation and implementation of response for the different municipalities affected. In terms of response preparedness, it may be in charge of updating the inter-municipality contingency plan, ensuring the consistency of each municipality's spill response plan, organising staff training and acquiring an inter-municipality stockpile of specialised equipment.

Other municipalities

Conventions governing the lending of the municipality's means can be established between authorities to specify the terms and conditions of mutual assistance. This source of resources will generally be dependent on the fact that the municipalities called upon are not affected by the pollution.

The fire brigade

Fire brigades are responsible for fire prevention, protection and fighting. They also contribute, alongside the other relevant services and professionals, to protection against and response to other incidents, accidents and disasters, to the assessment and prevention of technological or natural risks as well as providing emergency rescue services.

Within the scope of their skills and abilities, they conduct the following tasks:

- civil protection risk prevention and assessment
- preparation of protective measures and organisation of emergency services
- protection of people, property and the environment
- emergency rescue and evacuation of victims of incidents, accidents or disasters.

Fire brigades can, in certain specific circumstances, request that the beneficiaries contribute to costs. It is recommended that a convention be established between the local authority concerned and the fire brigade to define the terms and conditions of their involvement.

In the event of a spill, the fire brigade will generally be mobilised to conduct the following actions:

- Alert
- Assessment (hazardous nature of the pollutant, extent of the incident...).
- Containment at the spill source.
- Safety enforcement, definition of the danger zone for the population and if necessary evacuation.

Clean-up, however, is not a mandatory task for fire brigades, and they may therefore request remuneration for such operations. In operational terms, the widespread involvement of firemen in clean-up operations would reduce their availability for fire fighting or other emergency duties. Only the higher authority in charge can decide to reduce the risk management organisation in this way. In most cases, fire brigades contribute to the launch of operations and are then gradually demobilised, handing response over to municipal staff.



Overpacking a drum

To be adapted to national context

The Local Council

Depending on the country of reference, some other organisations (district/regional authorities) may play a role and have responsibilities in the event of this kind of emergencies. National regulatory texts governing their involvement need to be checked in advance to guarantee coordinated preparedness and response.



Response training course in a French port

Inter-regional solidarity

Examples

France, Alpes-Maritimes

In 2005, the General Council created FORCE 06, an operational unit in case of environmental risks, which became a departmental service in 2008. Composed mainly of Forestry Commission firemen, its main purpose is to prevent forest fires. However, it can also respond to pollution incidents.

France, Vendée

When the shores of the Loire-Atlantique and Vendée areas were polluted in November 2009, the General Council of Vendée provided the affected municipalities with personnel from its road and maritime infrastructures department to take part in the clean-up work organised by the fire brigade.

Volunteers and Civil Protection

The volunteers that arrive in droves when an oil spill attracts considerable media attention are full of good will, yet generally novices in terms of response in a fragile natural environment. For the land authorities in charge of response, this means a human influx that needs to be housed, fed, equipped, trained, supervised and health monitored, for an involvement that offers no guarantees in terms of duration or results. Volunteers join in with response as “occasional public service contributors”, under the responsibility of the authority in charge of operations (local or higher authority), and benefit from a highly protective strict liability regime.

It is therefore in the municipality's best interest to avoid recourse to volunteers. If it nevertheless chooses this option, it should prioritise volunteers that are already trained in spill response and/or members of established, organised and trained associations. Whatever the case, it must ensure strict supervision and management of all volunteers.



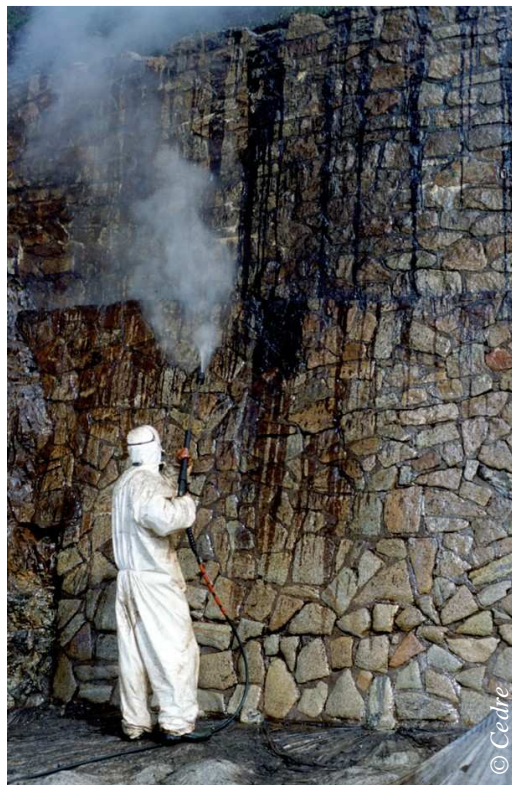
ARCOPOL project has produced guides for the management of volunteers adapted to French, British and Spanish context. They can be downloaded from the following link:

<http://www.arcopol.eu/arcopol/buscaDocu.aspx?act=A5>

Private means

The municipality can choose to contract specialised companies to conduct pollution response and/or waste treatment operations. Of course, this option has a cost. Yet it can be of interest in as far as these companies have negotiation capacities that the municipality does not. Furthermore, the use of a private contractor has the advantage of providing an invoice that can be presented to the polluter or compensation fund, therefore limiting disputes over the reality of expenses. Finally, this option enables municipal staff to continue to carry out their ordinary tasks, therefore not penalising the local authority.

Pressure washing of a wall by a specialised cleaning company



Requisitioning is always a possible option, but can prove very costly and is best avoided if the municipality hopes to negotiate rates.

The public contract procedure should be prioritised, but the timeframe required for publication and competitive bidding is not easily compatible with the need to respond rapidly so as to protect the environment. In an emergency, a contract may be granted without prior publication, competitive bidding, or a tender committee meeting (check regulatory texts governing this type of procedure).

There exists a procedure that allows both orders in compliance with public contract procedures and the need for urgent action: prior contracting through framework agreements. Such agreements may apply both to equipment suppliers and service providers. Anticipated in local contingency plans, they allow competitive bidding and enable the initiative to be shared between several municipalities.

Reinforcement by State services

National stockpiles

Many States have their own spill response equipment (booms, pumps, skimmers etc.) which they maintain and store. A request to use this equipment can be made by the local authority to its higher authority.



POLMAR stockpile

Civil protection units

These units represent national support in terms of emergency response and can operate at locations across the nation and worldwide to respond to all types of disasters. When a pollution incident exceeds the municipality's response means, the higher authority may call upon such units to conduct clean-up work. Their travel, accommodation, food and equipment restoration expenses will be claimed from the polluter or invoiced to the ordering party.



Response at a clean-up site following the Prestige spill

Who can assist the local authority in making the right decisions?

State services

The local authority can request advice and recommendations from State services, in particular, relevant agencies or administrative entities competent in terms of spill response, risk management etc.

Expert organisations

Different organisations identified in national regulations as well as in local, district, regional or national contingency plans can be called upon by the local authority to assist it in decision-making, in particular in terms of:

- information on the pollutant, its toxicity for humans and the environment: poison control centres, INERIS and Cedre in France, HPA in UK, etc.
- response methods and means: Cedre in France.
- pollution observation reports, water policy in inland waters
- response equipment in government stockpiles
- responder protection
- health monitoring, water quality for bathing
- weather forecast and slick drift predictions
- impact on the environment and marine resources

In addition to the support of these organisations, the local authority may seek the opinions of recognised experts:

- organisations involved in site management
- socio-professional organisations such as local or regional shellfish farming commissions, local fisheries committees, etc.
- nature protection associations
- universities and related structures (scientists, economists, legal experts...)

Each expert organisation has its own rules for the mobilisation and invoicing of its services.



When working for a local authority, certain organisations (such as Cedre in France) do not charge the authority for their services but rather seek payment from the polluter, his insurer or a compensation fund, requesting that the local authority attests to the services provided.

Who finances response operations?

In view of the "polluter pays" principle, the costs of pollution prevention and response measures are the polluter's responsibility. Whatever the environment in question, this principle applies in the case of a spill. However the application of this principle requires two fundamental prerequisites: the polluter must be identified and a direct causal link must be established between the incident and each instance of damage. Even when these two conditions are fulfilled, the polluter can limit his liability to the reimbursement of expenses subsequently judged justified and reasonable, leaving the public authority to advance the costs of response efforts.

The first reflex in the event of a spill is therefore to attempt to identify the polluter in order to negotiate direct payment of as much expenditure as possible. Everything that has not been directly covered will then be subject to compensation claims, in which each expense incurred to respond to the spill must be justified.

In France, to overcome these limits, the State has set up a response fund under the Ministry of the Environment, known as the POLMAR Fund, from which the local authority can claim the reimbursement of exceptional expenses of municipal staff and external expenditure. By accepting reimbursement by the fund, the local authority transfers to the State its rights to claim the amounts received.

Shipowner involvement:

example of the MSC Napoli

Between 25 January and 3 February 2007, clusters of oiled biscuit packets were washed up on the shores of 22 communes in Finistère and Côtes- d'Armor (Brittany).



Laboratory analysis by LASEM and Cedre rapidly identified the pollution as that of the MSC Napoli, a container ship that had run into difficulty in the Channel a week earlier. On 2 February, a meeting was organised by the Finistère authorities with the polluted communes, Vigipol and the shipowner's representative. The latter offered to cover the cost of clean-up operations and to contract a private clean-up company. The affected municipalities worked together, with the coordination of Vigipol, which advised them on the preparation of compensation claims. In the end, they all received compensation for 80 to 100% of their claim (actual clean-up costs). This out-of-court settlement did not stop Vigipol from lodging a complaint against the shipowner, in particular to obtain compensation for all the damages caused. While this complaint was rejected in 2009 by the French penal justice system, the case remained pending at the Commercial Court of London in February 2011.



Two priorities

- To identify the polluter
- To record, justify and preserve

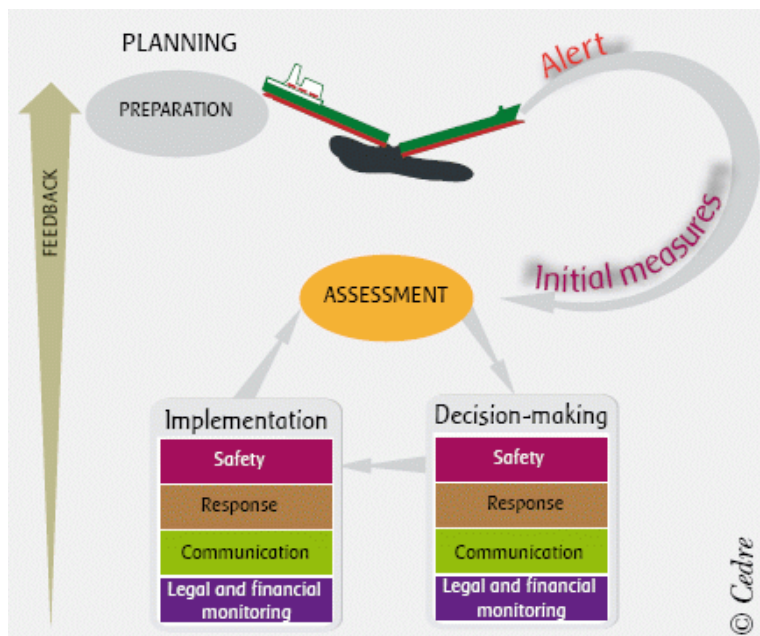
In the event of a spill...

Action to be taken

When an accidental water pollution incident occurs, the DEO for the municipality (e.g. the Mayor) should be able to draw upon its local contingency plan, prepared prior to the crisis, which summarises the reflex actions to be taken:

- ▶ Check the alert by visiting the site(s)
- ▶ Implement initial measures so as to:
 - Ensure safety (prohibit site access).
 - Alert, according to the origin of the pollution and the extent of the spill, the emergency services, the organisation responsible for the pollution, users and the authorities.
 - preserve the community's interests (determine the origin of the pollution, draw up an observation report, justify all decisions made and keep all supporting documents).
- ▶ Assess the extent of the pollution.










According to the extent of operations to be conducted, the DEO may or may not decide to activate the local Command Centre to manage the incident. He must determine, then oversee, the actions to be taken in terms of safety, clean-up, waste management, communication and legal and financial recordkeeping. To do so, he can rely on his team (local councillors and local authority staff) and all the organisations mentioned on p16.



Accidental water pollution incidents are often characterised by their considerable time duration. Throughout response, the state of the pollution and the relevance of response actions must regularly be reassessed. Following the event, feedback should help to identify lessons to be learnt for future incidents and to improve the local contingency plan

The following "What to do?" cards outline the action to be taken in the event of the most common cases of pollution. For more information on each of these assignments, see the flowchart on p 33.

Reflex cards: What to do?

- Arrivals of weathered tarballs on the shoreline  B1
- Discovery of a drum or container on the shoreline  B2
- Leak from a domestic fuel oil tank  B3
- Diesel spill in a harbour  B4
- Road accident causing a gasoline spill  B5
- Discovery of explosive ordnance on the shoreline  B6
- Discovery of stranded marine mammals  B7
- Discovery of oiled birds  B8
- Arrivals of solid waste  B9

Arrivals of weathered tarballs on the shoreline

Reflex actions

Before the pollutant arrives

- ▶ Have a competent person attest to the uncontaminated state of the shoreline..... 25
- ▶ Collect solid waste to prevent it from increasing the quantity of polluted waste..... 11

When the pollution is present

- ▶ Close off access to the shore 8 - 10
- ▶ Organise a survey 3-4
- ▶ Alert the authorities, emergency services, neighbouring municipalities.....
- ▶ Contact the MRCC to attempt to identify the polluter in the case of operational discharge.....
- ▶ Have a law officer attest to the pollution, with photos and sampling..... 23-24
- ▶ File a complaint at the police station

The product, its dangers, responder protection

Heavy fuel oil or oil that has spent a long time at sea contains few volatile fractions at ambient temperatures. The risk of intoxication by inhalation during simple clean-up operations (manual collection, pumping...) is therefore practically nil. The pollutant can however penetrate into the body by skin contact or ingestion.



Collecting tarballs following the Prestige spill

Responders must be equipped with personal protective equipment, suitable for the type of operations:

- Manual collection: basic clothing (boots, coveralls, oil-resistant gloves). Ensure no oil comes into contact with the eyes or mouth (touching face with gloves, drinking before decontamination...).
- Operations involving high temperatures (hot water pressure washing): basic clothing plus appropriate cartridge mask.
- Operations generating spray (flushing): basic clothing plus waterproof, dust mask, protective goggles.
- In severe weather conditions: basic clothing plus waterproof.

Response

14-18

- Recover the tarballs as they arrive to prevent them from becoming buried or being remobilised by the sea and contaminating previously unaffected areas; wait until there are no more arrivals before launching final clean-up operations (in particular on riprap).
- Collect the pollutant selectively (collect oil but not sand).
- Be very vigilant about sorting waste: separate oil, oiled sediments, solid waste, seaweed.

Waste sorting, storage and treatment

19-20

- Alongside response, the priority should be to sort and store was in oil tight containers on a non-sensitive site (e.g. waste reception centre), protected from severe weather and vandalism. Once the waste has been stored, there is then time to identify the least costly disposal method, or even to negotiate prices by playing competitors off against one another. The municipality may organise waste disposal itself or contract a private service provider to do so. Remember to take the costs of transport and disposal into account when comparing offers.
- Waste partially composed of oil is considered as dangerous waste for the environment; its transport and elimination are subject to regulations. The main companies able to eliminate such waste are refineries and special industrial waste incinerators. These establishments should be identified in the contingency plan.
- When several municipalities are affected, a higher authority may take charge of organising, and even financing, waste disposal.
- When there are no adequate facilities in the district, waste may be incinerated in household waste incineration plants, depending on the quantity and quality of the products and subject to prior authorisation and expert advice.

Communication

21-22

Example of a press release

On day/month/year, the municipality of was affected by oil pollution from the sea. Surveys conducted by ... confirmed the presence of scattered tarballs, ... cm in diameter, on the shoreline. Consequently, the beaches of ... are closed to the public. The municipality has filed a complaint against X.

A crisis unit has been set up at the council offices. It is coordinating the clean-up sites set up at The waste is stored at Regular situation updates are given with the authorities.

Financing operations

26-28

Operations are pre-financed by the municipal budget, except if covered by the relevant authority. Contact should immediately be made with the owner of the polluting ship, in order for him to directly cover costs, and for expenses to be reimbursed by the international IOPC Funds or other national funds.

Discovery of a drum or container stranded on the shoreline



Reflex actions



Unless they have formally been recognised as harmless,

All washed up drums or containers should be considered potentially hazardous.

Remain upwind of the drum or container. Do not attempt to handle it. Observe from a distance (binoculars) any symbols enabling it to be identified.

- ▶ Close off access to the shoreline and, if necessary, establish a safety zone. Inform local inhabitants and site users of the presence of a potential danger.....
- ▶ Gather as much information as possible, without putting responders at risk.....
- ▶ Contact the fire brigade
- ▶ Relay the information (authorities, emergency services, neighbouring municipalities).....
- ▶ Conduct a survey on the rest of the municipality's shoreline to identify the presence of any other drums or containers.....

8-9-12

3-5



13

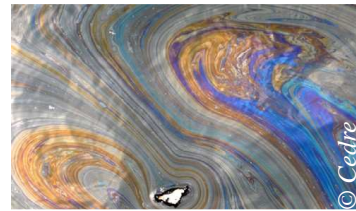
3-5

Response

Unless it has formally been recognised as harmless, handling of the container should be left to the emergency services who are equipped, trained and practiced in doing so.

Diesel spill in a harbour

(or similar substance: marine diesel)



Reflex actions

- ▶ Stop the spill and ensure the facility or ship causing the pollution is safe.
- ▶ Characterise the pollution: identify the product spilt, its volume, its movement on the water body.....
- ▶ Alert: the port authorities, emergency services, vessels and other users of the water body (fishermen, shellfish farmers, users of the water supply...)
- ▶ Determine exclusion and safety zones on land and on water
- ▶ Collect evidence: report by law officer, photos, samples
- ▶ Launch response operations

3-5

23-24

The product, its dangers, responder protection

Diesel evolves by spreading over the surface, evaporating and dissipating. The fire and explosion risk is practically nil in the open environment (flash point > 50°C). Nevertheless, these risks should not be completely dismissed if the spill occurs in a confined area or if accumulations gather under floating pontoons.

Diesel presents a toxic risk if it penetrates into the body. Personal protective equipment must be worn:

- basic clothing: boots, coveralls and oil-resistant gloves (nitrile).
- in the presence of vapours (confined or poorly ventilated area) or spray (agitation of a water body): cartridge mask covering nose and mouth.

Response

- Contain the polluted area or source of the pollution by surrounding it with a floating or sorbent boom. Promote the concentration of the pollutant using a hose by creating a current in front of the slick.
- Depending on the volume, recover the pollutant using floating sorbents (pollution < 1m³) or pump it off (vacuum truck). Finalise recovery using sorbent pads.
- Avoid chemical dispersion (use of washing-up liquid for instance): due to the low level of water renewal, it will be impossible for the dispersed pollutant to dissipate. It will end up settling and accumulating on the muddy floor of the harbour.

FOR MORE INFORMATION



Guide "Response to Small-Scale Spills in Ports and Harbours" www.cedre.fr

Leak from a domestic fuel oil tank



Reflex actions

- ▶ Ensure the site and area downstream of the spill location are safe.....
 - Close off access to the site
 - In a confined area or in the presence of a source of heat, evacuate and call the fire brigade
- ▶ Identify the source of the pollution (follow the flow of the spill back to its source: sewer, trench, stream...). Stop the spill and/or contain it as close to the source as possible (sand, earth, sorbents...)
- ▶ Characterise the pollution: identify the product spilt, its volume, its movement.....
- ▶ Alert, according to the scale of the incident: site owner(s) and manager(s); fire brigade and police; site users and, where relevant, users of the polluted watercourse (waterworks, farms...)
- ▶ Collect evidence: report by law officer, photos, samples.....

8-9-12



3-4

24

The product, its dangers, responder protection

As domestic fuel oil has a low volatility at ambient temperatures, the fire/explosion risk is relatively limited. However, it should not be completely ruled out in high temperatures or confined areas.

Diesel presents a toxic risk if it penetrates into the body. PPE must be worn:

- Basic clothing (boots, coveralls and oil-resistant gloves).
- In the presence of vapours (confined or poorly ventilated area) or spray (agitation of a water body): cartridge mask covering nose and mouth.

The environmental risks are mainly due to the dissolution of certain toxic compounds in the water column.

Response

- On site: pumping, or manual recovery of the pollutant using sorbents
- Downstream: deployment of filter booms or sorbents
- Evacuation of polluted earth
- Sorting and storage of waste in oiltight, covered containers
- Following response operations, clean-up of polluted infrastructures

FOR MORE INFORMATION



Guide "Use of Sorbents for Spill Response"
and "Protective measures" datasheets on www.cedre.fr

Road accident causing a gasoline spill



Reflex actions

- ▶ Ensure the site is safe.....
 - Prevent / eliminate all hot spots or sparks (stop engines, do not smoke, do not start up electric or electronic equipment: mobile phones...).
 - Stop the spill if possible.
- ▶ Alert the fire brigade
- ▶ Plug drains to reduce the risks of explosion in drainage pipes.
- ▶ Alert, according to the scale of the incident: police, site owner(s) and manager(s), authorities, site users and, where relevant, users of the polluted watercourse (waterworks, farms...).
- ▶ Collect evidence: report by law officer, photos, samples.....

8-9-12



23-24

The product, its dangers, responder protection

The risks related to a gasoline spill are particularly high for responders due to the production of extremely flammable, toxic vapours.

If the vapours form a persistent cloud, it may move around and come into contact with a source of ignition or a hot spot and ignite, or even explode. The fire brigade should be alerted immediately, and will respond using appropriate personal protective equipment, means and techniques.

From an environmental point of view, a gasoline spill in a watercourse generates the presence of high quantities of toxic molecules in the water column. In addition to the hydrocarbons, additives in gasoline are also toxic (unleaded gasoline). Users should be alerted and, if necessary, use of the water prohibited.

Response



Flammable substances



Response must only be conducted by the emergency services

Under no circumstances should municipal services intervene. In doing so they would be putting their own life and those of others in danger.

Discovery of explosive ordnance on the shoreline



Reflex actions



By virtue of his general police power,
the local authority is responsible for safety.

He must ensure the protection of the population between the moment explosive ordnance is discovered on the shore and the moment it is neutralised.

- ▶ Close off access to the shoreline and, if necessary, establish a safety zone.
Inform the population of the danger
- ▶ Gather as much information as possible (type of ordnance, precise location), without putting responders at risk
- ▶ Cordon off the explosive ordnance using stakes and barrier tape, especially if it is covered at high tide
- ▶ Alert:
 - Emergency services (fire brigade, police)
 - Land authorities to mobilise the civil protection unit if the explosive ordnance is above the high tide mark
 - Maritime authorities to mobilise the underwater explosive ordnance disposal unit if the explosive ordnance is on the foreshore.
- ▶ Relay the information (authorities if not already done, neighbouring municipalities)

8-9

Response



Explosion risk



Response should be left to the emergency services.

Under no circumstances should municipal services intervene. In doing so, they would be putting their own lives and those of others in danger.

Discovery of stranded marine mammals



Reflex actions

Cetaceans and other marine mammals are species protected by the Washington Convention of 3 March 1995, as well as national regulations in certain countries. In France for instance, all marine mammals, living or dead, must undergo scientific examination before their elimination.

1. Before taking any action, whatever the condition of the animal, even in the case of an advanced stage of decomposition,

- ▶ Fill in the survey form
- ▶ Contact the relevant wildlife agency



2. When waiting for a wildlife specialist to arrive:

- Case of a living animal

- > Beware of the risk of blows, bites...
- > Do not handle to prevent injury
- > Prevent crowding, agitation and noise which could distress the animal
- > Do not attempt to release it into the water
- > For dolphins: never pull on fins, dampen the animal by covering its back and sides with damp cloths (or, if none are available, by carefully splashing the animal), never cover or splash the blowhole (breathing orifice located at the top of the head).

- Case of a dead animal

- > Ban public access
- > Wear personal protective equipment (gloves) to prevent all risks of disease transmission when handling the animal
- > Remove the animal and store it at a dedicated site inaccessible to the public



Health risk

3. After inspection by a wildlife specialist:

- Case of a living animal: taken charge of by the wildlife agency
- Case of a dead animal: contact the knacker's yard within 24 hours, which will remove and dispose of the carcass free of charge



Discovery of oiled birds

Reflex actions

■ Case of living birds

- Never take unreasonable risks in order to reach the animal.
- When a bird is found, the possibility of it escaping and its accessibility must be considered.
- Approach the bird by positioning yourself between it and the sea to stop it from returning to the water.
- The bird should be caught using thick material, preventing it from being injured. Its wings should be held against its body and the head hidden. When handling birds, keep them far away from your face (beware of the beak and claws).
- Do not attempt to clean it yourself. Do not give it any treatment - Do not feed it or give it water.
- Place it in a cardboard box punctured with holes, with newspaper in the bottom. Stick the label below on the box.

	LIVE BIRD	
Date of discovery: ____ / ____ / ____	Time: ____ : ____	Phone: _____
Place of discovery (place name): _____		
Bird sent by (full name or team reference): _____		
Address (street - post code - area): _____		

SPECIES (if known): _____	Number of birds in box: _____	
Section reserved for Rescue Centre		
Registration number: _____		
Initial care and/or feeding: _____		

HANDLE WITH CARE		



■ Case of dead birds

- ▶ In the case of a spill, it is important to be able to count the dead birds, species by species, for ecological monitoring.
- ▶ Wear gloves and/or cover your hands with plastic bags to handle dead animals. Place dead birds in a clear plastic bag.

■ In all cases

- ▶ Contact the closest wildlife rescue centre which will tell you where to take it.



FOR MORE INFORMATION

See the LPO website: www.lpo.fr/detresse/gestesquisauvent.shtml

Arrival of solid waste



Reflex actions

By virtue of its general police power, the local authority is responsible for public health within the municipality. It must therefore organise solid waste collection.

The following common sense instructions may be provided to the personnel and associations in charge of collection.

Safety

Instructions

Do not venture into steep, slippery areas, where you may be at risk of falling into the water.

If you discover a container with the following symbols:



Do NOT touch the container, cordon off the area with stakes and barrier tape, and alert the police or fire brigade.

- ▶ **Do not open containers containing liquids** (even if it looks like water), place them in a bin bag and check that the liquid does not leak out the bag.
- ▶ **Dangerous or sharp solid waste** (glass or metal debris) **should be transported in solid containers** (plastic or metal buckets), not in bin bags.
- ▶ Wear resistant gloves and closed shoes.
- ▶ Wear goggles and in sunny weather a cap or hat and a t-shirt. Drink plenty of water.
- ▶ Do not carry bags that are too heavy, change bags when necessary.
- ▶ Do not lift waste that is too heavy, ask for help or report it to a leader.
- ▶ When transporting waste in vehicles, place solid waste or bags in an oiltight container.
- ▶ Identify who in the team has a first aid certificate.
- ▶ **Have a charged mobile phone at hand**, with the emergency numbers saved (council, fire brigade, police, MRCC...).



Be environmentally friendly!

- Do not walk on the dune, or collect the wood on it (wood helps to maintain the dunes).
- Avoid using motor vehicles to move around on the beach.

Photo opposite: Manual recovery and response by specially formed teams. Source: Cedre



PRACTICAL DATASHEETS

Practical Datasheets for Responders

In the event of a spill...

Action to be taken

Upon receiving the alert, the local authority, as the Director of Emergency Operations, must first of all verify the authenticity of the information.



The first measure to be taken therefore consists of conducting a **survey**, which will help to identify the sites affected, to qualify the pollution (oil or bulk product, packages, containers, washed up wildlife...) and assess its extent.



Based on this survey, the local authority will organise response by **managing the 4 components of the incident**: safety, response (clean-up and waste management), communication (internal, institutional and media) and legal and financial management.

In terms of response priorities, these assignments can be divided into **3 phases**:

- The **emergency phase**

The aim of this phase is to first ensure human safety, then to protect property and the environment. Meanwhile, as much information as possible on the pollutant should be gathered. Moreover, the authorities should be alerted as early as possible. From this initial phase, the municipality will be responsible for accumulating pollution declarations and justifying each decision made to later support a compensation or litigation claim.



- The **response phase**

Having ensured the population's safety, the DEO will direct response and manage the incident over time, while carefully considering all operational, media-related, legal and financial aspects.



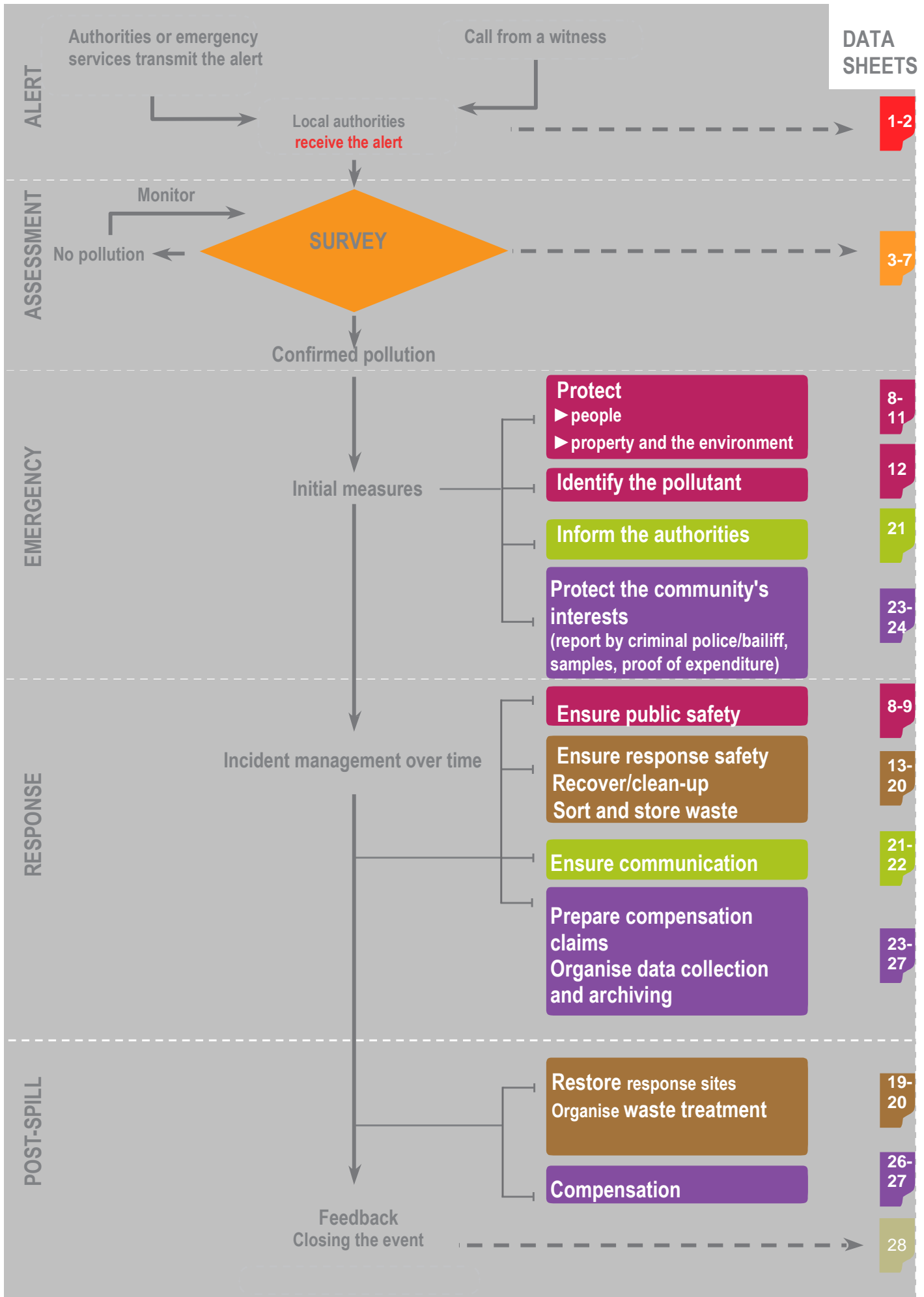
- The **post-spill phase**

When clean-up has been completed and waste stored, the site must be returned to its original uses as quickly as possible. There is then time to identify the most appropriate waste treatment possibilities and prepare a compensation claim.

Following the spill, **feedback** should enable lessons to be drawn for the future and the local contingency plan to be improved.



The following flowchart summarises the main actions to be taken and indicates the relevant datasheets



Each datasheet displays one or more logos indicating the type of pollutant concerned



Bulk products with no severe or imminent hazard for man: vegetable oil, paraffin, oil weathered at sea...



Bulk products presenting a severe and imminent hazard (toxic vapours, corrosive product, risk of explosion...): gasoline, hydrochloric acid...

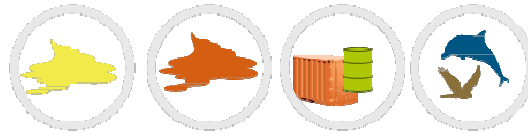


Fauna: cattle, marine mammals, fish, birds..., living, dead or polluted



Packaged products (containers, drums, boxes...)

Assignment Sheet



Receiving the alert

Aims

A spill of oil or Hazardous and Noxious Substances (HNS) can occur anywhere (at sea, in a water-course, on a road or railway, on an industrial site...) and at anytime (during working hours as well as at night and at the weekend). The event may be reported by an authority (for instance in the case of a major spill at sea), the emergency services (road or rail accident), a local government agent or simply a witness (walker, swimmer, pleasure boater...). Sometimes, the polluter himself will raise the alarm (port manager, industrial agent, citizen...). The local authority, as the Director of Emergency Operations, is in charge of first line emergency response. The rapidity of response will depend on the quality of the message received. It is therefore essential to organise the alert-receiving system within the municipality:

- Define a transmission system for the initial alert
- Organise on-call telephone support outside of working hours
- Distribute and train potential receivers of emergency calls (switchboard operators, local councillors or duty agents) in the use of the "alert message form" (Sheet n°2).

Actors

- ▶ Duty agent, telephone operator or local councillor

Actions

Fill in the alert message form

2

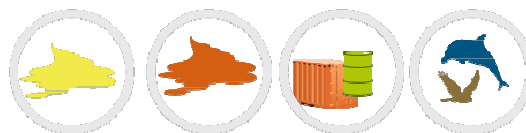
Inform the Director of Emergency Operations

Check the information by organising a survey

3 to
6



When drafting the local OSCP, the municipality may organise an awareness-raising campaign on the measures taken to handle pollution and the behaviour that each citizen should adopt in this event (emergency telephone numbers). The information concerning on-call duty (staff, contact details and hours) should be communicated to the authorities and emergency services. On-call duty may be shared between neighbouring municipalities.



Alert message form

This sheet is designed to guide the dialogue when transmitting or receiving an alert to ensure that no elements essential to fully understanding the event are omitted.



Receiving the alert

Contact details of caller

Name:
Department/position:
Tel.:
Fax:
Email:

Date and time of call:

Contact details of receiver

Name:
Department/position:
Tel.:
Fax:
Email:



Describing the event

Date and time of the event:

Location:

(place name, town/village, district...)

Description (pollution, accident, fire, explosion, toxic emission...):

Source (vessel, vehicle, industry, undetermined...):

Product involved⁽¹⁾:

Quantity (units):

Where relevant, other product involved ⁽¹⁾:

Quantity (units):



Initial assessment

Exact situation at time of call (people injured, fire under control, in progress...):

Evolution, possible short term risks (resources at risk, targets):



Degree of certainty

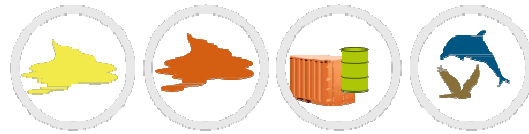
- Doubtful (to be confirmed)
- Reliable but inaccurate
- Definite (already confirmed)



Action to be taken

⁽¹⁾ if the product is undetermined, specify: presence of danger label, colour, viscosity, appearance, perceptible smell.

Assignment Sheet



Conducting a survey

Aims

- ▶ To confirm or reject the alert message.
- ▶ To identify the areas affected, characterise the pollution and provide initial elements for decision- making:
 - To define the type and extent of the pollution
 - To help to determine priority response sites (risks of remobilisation)
 - To guide response operations, in particular the type of initial clean-up operations to conduct.
- ▶ To monitor the evolution of the pollution: to establish successive situation assessments.

Actors

- ▶ Observer familiar with the coastline and trained in surveying: fire brigade, police, coastguard, local government agent...
- ▶ For sampling for legal purposes: trained sworn law officer

Equipment

Appropriate clothing (soiling, weather, site type, long walk...).

Transmission: mobile phone or VHF.

Communication: topographic map, GPS.

Notes: notepad, protective folder in case of rain, photocopies of topographic maps. Blank survey forms.

Camera or video camera, spare batteries and memory cards.

Observation: binoculars, trowel or folding spade for inspecting the sediment.

Quantification: 10 m measuring tape.

Sampling

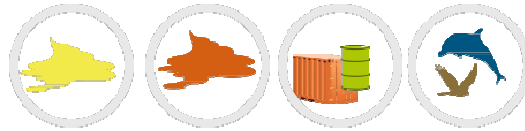
Watch and tide table.

Possibly, vehicle (4x4 or quad sometimes necessary)

4 to 6

7





Conducting a survey

Actions

► Before leaving

- Define the area to be covered.
- Endeavour to cover the whole of the municipality's coastline.
 - Choose sites to be seen as a priority according to information from the alert, areas of waste accumulation (valid for all floating pollutants), the latest aerial and/or land-based surveys.
 - Ensure the necessary access clearance (industrial or military sites, private property...).
- Choose the best time (tides, time of transmission to command centre...).
- Gather all the necessary equipment
- Inform others of the planned route and expected return time.

► During the survey

- Fill in the survey form (one form per site).
- Accurately describe the pollution (viscosity, type of arrivals, colour, odour...) and the site affected. Beware of mistaking natural elements for pollution (looking like arrivals of oil for instance) and of the pollutant being covered with sand. 4-6
- Take photos and/or films.
- Possibly, take samples.
- If the observer is sufficiently knowledgeable, given initial indications of response techniques (natural clean-up, manual collection, environmental precautions).
- 7

► After the survey

- Send off samples for analysis.
- Carefully file and store survey reports, images and samples.
- 25



Hazardous and Noxious Substances

- Unless they have formally been recognised as harmless,
any products, drums or containers washed up on the shore should be considered as potentially hazardous.
- If there is a risk of toxic vapours being released, do not go near. Always stay upwind of the product, drum or container. Contact the emergency services which will respond with measurement apparatus and appropriate PPE.



Survey form

Oil and non-hazardous bulk products

▶ Generalities

Date (DD/MM/YY):
Time:
Name of observer:
Organisation:
Tel.:

▶ Site

Municipality (district/region):
Name of site (place name):
GPS coordinates:
Site polluted: yes no
New arrival: yes no

▶ Description of the pollution

Location

Cliff Rocky platform Riprap - Rocks Stones Sand
 Marsh - Mudflat Smooth structure (wharf...) Water body Other (specify)

Appearance

Sheen - Oily film Tarballs Patties Patches Slicks

Deposit

On surface Buried (covered with a layer of sand) Infiltrated (between stones or riprap)

viscosity

Fluid Paste Solid Colour: Odour:

Quantification

Length of shoreline affected (L) m
Width affected (W) m

Estimated total volume

▶ Operational aspects

Target to protect Population Environment Water intake Other:
Accessibility Nautical means Earthmoving Light vehicles Pedestrians

Possibility of storage (car park, prepared area, trench on back shore...):

Expected difficulties (mixture of oil with seaweed or solid waste, risk of remobilisation...):

Documents attached (sketches, maps, photos, samples, technical and/or environmental recommendations...):



Reference sheet

for surveying bulk pollutants (oil, vegetable oil...)

▶ Describing arrivals

To avoid confusion over arrivals and to ensure coherent survey reports, use the nomenclature below:



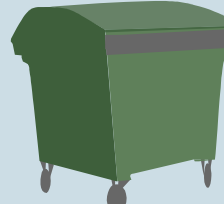
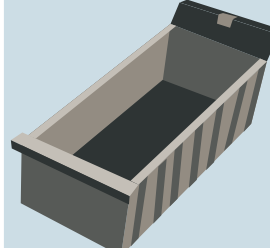
Nomenclature - pollution survey

Tarball	1 to 10 cm
Patty	10 cm to 1 m
Patch	1 to 30 cm
Slick	> 30 m

▶ Estimating pollutant volume

The volume of pollutant deposited on a site is a difficult element to assess. It is nevertheless crucial in order to set up appropriate response logistics. A simple method consists of estimating the approximate volume of the container needed to store the pollutant.

▶ Can the volume of pollutant / polluted waste be stored in ...?

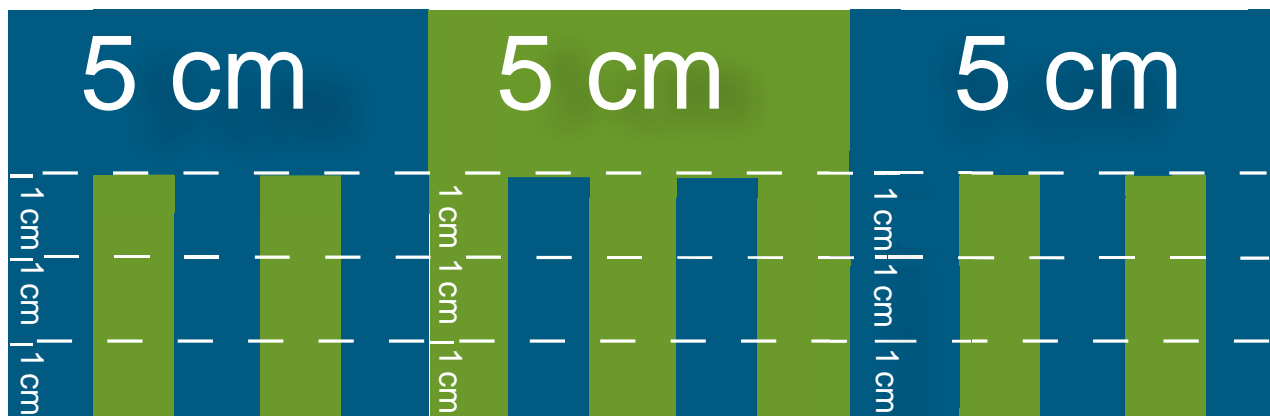
			
10 litres = 0.01 m ³	100 litres = 0.1 m ³	1000 litres = 1 m ³	10 m ³

Giving an approximate volume of m³

FOR MORE INFORMATION



Guide "Surveying Sites Polluted by Oil" www.cedre.fr



Tool Sheet



Survey form

Grounded package, drum, container



HNS

Unless they have formally been recognised as harmless, **all washed up drums or containers should be considered potentially hazardous**. After several days spent at sea, the distinctive marks on a hazardous package may have disappeared. Do not go near, remain permanently upwind and attempt to identify it using binoculars.



Contact the emergency services

▶ Generalities

Date (DD/MM/YY):
Time:
Name of observer:
Organisation:
Tel.:

▶ Site

Municipality (district/region):
Name of site (place name):
GPS coordinates:
Comments (tide level...):

▶ Description of the pollution

Form Package Drum Standard container Tank Other (specify)
Condition Good Damaged Leaking

Identification elements

Symbol (circle)

Fill in numbers:

Danger code
UN n°



Dimensions (width x length x height, specify units):

Colour:

Quantity (number of units):

Markings:

▶ Operational aspects

Site characteristics (beach, harbour...):
Target to protect: Population Environment Water intake Others:
Accessibility: Nautical means Earthmoving equipment Light vehicles Pedestrians
Expected difficulties (drum covered at high tide...):

Documents attached (sketch with dimensions and markings, photos...)



Reference sheet

for the identification of a stranded drum or container

Dangerous goods transport labels.

N°1 Explosive	N°2 Non flammable gas	N°2 Flammable gas	N°2 Toxic gas	N°3 Flammable liquid	N°4.1 Flammable solid	N°4.2 Spont. flammable	N°4.3 Hydroreactive
N°5 Combustive	N°6.1 Toxic	N°6.2 Infectious	N°7 Radioactive	N°8 Corrosive	N°9 Miscellaneous		

Other labels

Hot	Dangerous for the environment

20 foot equivalent container

Standard 200 L drum

Hazard classification of the contents.
Here: class 6: toxic substance and class 8: corrosive substance



Survey form

Stranded wildlife

▶ Generalities

Date (DD/MM/YY):
Local time:
Name of observer:
Organisation:
Tel.:

▶ Site

Municipality (district/region):
Name of site (place name):
GPS coordinates:

▶ Description of the pollution

Type	<input type="checkbox"/> Bird	<input type="checkbox"/> Marine mammal	Condition	<input type="checkbox"/> Injured	Maturity	<input type="checkbox"/> Juvenile
	<input type="checkbox"/> Other mammal	<input type="checkbox"/> Fish		<input type="checkbox"/> Dead		<input type="checkbox"/> Adult
	<input type="checkbox"/> Other (jellyfish...)	<input type="checkbox"/> Shark				

Species (specify):

Identification elements: Tag or ring:
Dimensions (specify units): Colours:

Number of individuals:

▶ Operational aspects

Site characteristics (beach, creek...):

Accessibility Nautical means Earthmoving equipment Light vehicles Pedestrians

Expected difficulties:

! Action to be taken

Dead animal: do not handle to prevent all disease transmission risks.

Live animal:

- do not handle to prevent injury.
- prevent crowding, agitation and noise which could distress it.
- do not attempt to release it into the water without help from specialists.

For dolphins:

- never pull on fins. Dampen the animal's skin by covering its back and sides with damp cloths (or if none are available by carefully splashing the animal).
- never cover or splash the blowhole (breathing orifice located at the top of the head).



Sampling

Oil and non-hazardous bulk products

Aims

- ▶ Sampling may be conducted for two distinct purposes:
 - to identify the pollutant, for administrative or legal purposes. Identification consists of characterising the distribution of certain components of the pollutant in relation to a reference sample.
 - to analyse its physico-chemical characteristics for operational or scientific purposes (flash point, water content, pollutant composition, toxicity, evolution...).

Actors

- ▶ Sampling for legal purposes: law officer or trained sworn agent (coastguard, government agent...).
- ▶ Other types of sampling: any operator.

Actions

Collect, from representative sites, the necessary quantities of pollutants for the relevant tests:

- 100 grams for identification
- 500 grams for an assessment of operational characteristics.

For identification for legal purposes, take 3 samples (1 for analysis, 1 for counter-analysis, 1 for preservation).

▶ Place the pollutant in the jar or aluminium tray. Place a sheet of aluminium foil between the container and the lid. Close the jar.

▶ Label the sample. Each sample should be identified with labels indicating its characteristics and origin. Double label: one label stuck on the jar, another on the plastic bag containing the jar.

▶ Store the sample in cold conditions at plus temperatures (between 0 and 10°C).

▶ Send as soon as possible (ideally within 8 days) to:

- a qualified laboratory for legal identification (navy laboratory, laboratory or expert qualified by the courts)
- a laboratory equipped with a GC/MS for administrative identification (navy laboratory, *Cedre*,...)
- a laboratory for analysis of the pollutant's physico-chemical characteristics.





Sampling equipment

Oil and non-hazardous bulk products

▶ Equipment

- Gloves resistant to the given product
- Glass jars (e.g. jam jars)
- Aluminium trays and foil
- Stainless steel spoon or spatula
- Paper towels
- Labels and indelible ink pens



 Warning, never use plastic to sample or store oil, as it can contaminate samples. Only use non-contaminating materials: glass, Teflon, stainless steel, aluminium.

GENERAL INFORMATION

Name: _____ Phone n°: _____

Position, Organisation: _____ Email: _____

Address: _____ Dispatch date: _____

SAMPLE INFORMATION

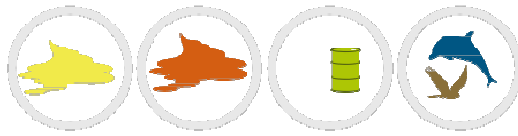
Origin (site name, municipality): _____ Observations: _____
viscosity, colour, site type -beach,
rocks, harbour...-)

Date / time of sample: _____

Nature (pollutant type, sediment, stones...) _____

Sample n°: _____

Assignment Sheet



Protecting the population

Aims

- ▶ In accordance with his local powers, the local authority must ensure public safety (Art. L. 2212 of CGCT). When faced with any sort of danger, it must take the initial measures to protect and inform the population.

Actors

- ▶ Local authority or on-duty local councillor
- ▶ Emergency services, local police force

Actions

Alert users exposed to the risk (swimming, sailing club, fish farm, thalassotherapy centre,...). Use all useful means commensurate with the danger (mobile alert unit, door to door, telephone, posters, municipality's website, media...). Specify action to be taken (confinement, evacuation, suspended use of site or water...).



Hazardous and Noxious Substances

If there is a toxic risk,
the emergency services will be in charge of alerting the population.

Close off access to the shore

- Cordon off the area (barriers, cones, barricade tape,...)
- If necessary, set up an exclusion zone
- Pass a municipal by-law to close beaches; publish the ban on the website and in the local authorities' offices

9

If there is a risk of new arrivals, inform the population of the hazard and of actions to be taken.

- Produce a general public poster; display it on site and in the local authorities' offices; for popular tourist areas or areas near an international border, translate it into foreign language(s)

10





Municipal by-law template banning access to a beach or polluted area and prohibiting bathing

By-law N°

Prohibiting access to beaches and bathing due to pollution by (specify type of pollution)

The Mayor of the Municipality of

Pursuant to articles L 2212-1 and the following and to article L 2213-23 of the French General Territorial Collectivities Code

Pursuant to articles L1332-1 and the following, D 1332-1 and the following and L 1337-1 of the French Public Health Code

(example for France, to be adapted to national context)

CONSIDERING

- the proven presence of pollutant or the imminent risk of arrival of pollution on the coast
- that the Mayor is responsible for taking the necessary public health and safety measures within his Municipality

BY-LAW

Article 1: Due to the presence of (type of pollution), access to (sites concerned) and bathing are prohibited from (date) at all times of the day and night to persons and vehicles without a special authorisation in their possession granted by the local authority.

Article 2: This by-law is published and displayed in compliance with the rules in force. In order to inform the public, this by-law is also displayed at the entrance to the sites concerned.

Article 3: This ban is indicated by barriers set up at the entrance to the sites and, during the summer season, by flags indicating pollution at the rescue station.

Article 4: All breaches of this by-law shall be prosecuted and the penalties provided for in articles R. 610-5 of the Penal Code will be imposed.

Article 5: A copy of this by-law will be addressed:

- to the Departmental Prefect
- to the Sub-Prefect

Article 6:

- The General Services Manager
- the local Chief of Police
- the Technical Services Manager

are each, within the scope of their duties, in charge of ensuring the application of this by-law.

Signed in, on..... The Mayor

Signature and stamp

.....



"Shoreline oil pollution" information

Example of instructions to display on the shoreline in the case of a residual risk of pollution by tarballs.

Safety Instructions

On, an oil spill affected the shoreline of the municipality of The condition of the beaches is monitored on a daily basis by the municipality's technical services, which, where necessary, are in charge of collecting tarballs and patties.

WARNING

Traces of oil may persist
and the arrival or residual pollutants is still possible.

- ▶ If you observe floating pollutant, if nautical equipment is oiled (surfboards, ...): stop your activity and get out of the water.
- ▶ If you see pollutant on the beach: identify the area and move away, without stepping in it (risk of the pollutant being spread and/or buried).
- ▶ If you find an oiled animal: do not touch it.

then alert the local authorities

OPENING HOURS
ON-CALL DUTY N°

- ▶ If you notice oil stains on your skin:
 - Dissolve the stain with an oily product (vegetable oil, vaseline, sun screen...)
 - Wash with soap and water (do not use solvents)
- ▶ If you notice health concerns (irritations, headaches...): see a doctor

**Pollution of the shoreline
by oil**



Protecting property and the environment

Aims

When circumstances and timeframes permit, certain measures can be taken before the pollution arrives to reduce its impact and facilitate subsequent response. These measures are intended to:

- Protect channels and water intakes
- Protect quays and port infrastructures
- Reduce the volumes of polluted waste.

Actors

- ▶ On-duty agent or local councillor
- ▶ Technical services

Actions

▶ In the case of a threat of pollution to the shoreline

- Collect litter and natural debris (seaweed, posidonia, eelgrass, drift-wood,...).
- Set up a protective system for channels (temporary sealing, nets) and water intakes (filters).

▶ In the case of a threat or pollution in a marina

- Restrict spreading with a floating boom (containment or sorbent).
- Create a water flow along stone walls to prevent the pollution from sticking to infrastructures.
- If possible, remove or distance boats. If the water body is polluted, advise boat owners against going onboard (as oil floats, swaying or loading down the boat will widen the polluted band on the hull).

FOR MORE INFORMATION

Technical datasheets on www.cedre.fr, response section

Assignment Sheet



Identifying the pollutant and its dangers

Identifying the pollutant

1. Unknown source of pollution: Precautionary principle



Hazardous and Noxious Substances

Unless they have formally been recognised as harmless,

all products spilt or washed up should be considered potentially hazardous.

If there is a risk of toxic vapours being released, do not go near. Always remain upwind of the spill.

Gather as much information as possible: colour, viscosity, and contact the emergency services which will respond with measurement apparatus and appropriate personal protective equipment.

If the pollutant is coming from the sea, contact the local maritime authorities which may have received information from the central maritime authorities on the nature and risks of the product.

7

If the pollutant is formally recognised as free of severe and imminent danger (the case of oil weathered at sea for instance), take samples and have the product analysed by an appropriately equipped laboratory.

2. Known source of pollution

- ▶ Collect as much information as possible on the pollutant from the entity responsible for the spill (industry, transporter, individual...): scientific name, commercial name, UN n°, CAS, composition.
- ▶ Retrieve the Material Safety Data Sheet (MSDS).

The MSDS is a document which provides, for a given product, information on the dangers for human health and the environment, as well as indications on the protective means and measures to be taken in case of emergency. It should be provided to the customer by the manufacturer, importer or seller of the product.

If the polluter is an industrial firm or a transporter, he should be able to provide the product's MSDS. If the polluter is a private individual (e.g. leak from a domestic fuel tank), contact the manufacturer to obtain the MSDS.

Identifying its dangers

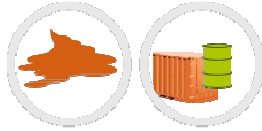
When the pollutant is identified (composition, name, UN n°, CAS or MSDS), to establish the risks for humans and the environment contact:

If the product presents a severe and imminent danger:

Emergency services

Otherwise:

- Poison control centre
- Cedre
- INERIS
- Regional health board



Response to spills of hazardous substances



Hazardous and Noxious Substances



Response to all unknown or dangerous products, whether in bulk or packaged,

should be left to the emergency services.

Under no circumstances should municipal services intervene.

By doing so, they would be putting their own lives and those of others in danger.



Overpacking a drum



Organising a clean-up site

Aims

- ▶ Before all response operations on the shore, it is essential to take the time to organise worksites, and in particular to prepare access routes, storage sites and a decontamination area to prevent transfer of the pollution and damage to the site.
- ▶ Each worksite should have a clearly identified manager who ensures safety and the application of response techniques prescribed by the Command Centre. He reports to the Command Centre on a daily basis ("Daily worksite record sheet").

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Actions

▶ Prepare the worksite

- Regulate access (ban public access).
- Define a traffic system and mark off vehicle access. Protect the ground (track, geotextile) when responding on sensitive sites (dunes,...).
- Channel pedestrian traffic.

▶ Organise the space

A worksite may for instance be organised as follows:





Ensuring safety and security on worksites

Aims

On spill response worksites, operators can be exposed to various risks against which they must be protected.

Protection against worksite accidents involves:

- methodological worksite organisation measures (access preparation, cordoning off...).
- efficient transmission means (alert, land/water communication).
- safety and individual responder protection measures.

Actors

- ▶ DEO, worksite manager
- ▶ As soon as the worksite begins to escalate, a Health and Safety Officer must be designated. Additionally, a simplified general coordination plan (SGCP) on health and safety is required when certain high risk tasks are conducted (risk of falling > 3 metres, risk of drowning, tasks exposing workers to chemicals requiring medical surveillance,...).

Actions

- ▶ Comply with labour legislation, in particular in terms of risk prevention
- ▶ Follow instructions on the organisation and marking out of worksites
- ▶ Guarantee individual protection: conduct a risk assessment and equip all responders with appropriate PPE. The main risks to be prevented are:
 - **Same-level falls:** traffic system, marking/cordoning/taping, slip resistant shoes.
 - **Falling objects:** safety zone for lifting, helmets, safety shoes.
 - **Thermal burns:** cotton coveralls, gloves...
 - **Impact injuries:** vehicles driven by qualified, trained drivers, vehicles equipped with warning alarm and lights, avoid having pedestrians and vehicles working simultaneously on the same site.
 - **Falls into water:** life jacket.
 - **Noise:** protection upon emission, protection by passive or active helmet.
 - **Dust and micro-particles:** dust mask, specialised mask, goggles.
 - **Contact and intoxication by the pollutant:** gloves, coveralls, and if toxic vapours, respiratory protection masks.
 - **Dehydration:** do not overprotect responders, take regular breaks to take fluids, avoid working at the hottest times of the day.
 - **Musculoskeletal disorders (MSD):** use machinery or work as a team to carry heavy loads, do not overfill buckets and bins...



Cleaning polluted sites

Aims

Clean-up operations should not be launched until the following aspects have been considered:

- ▶ Response must not cause greater harm to the environment than the presence of the pollutant itself.

The selected techniques should be compatible with the characteristics of the spill and site, and correctly implemented. In some cases (marshland, sites exposed to waves), it is sometimes preferable to "do nothing" and to leave nature to do the clean-up work.

- ▶ The level of clean-up to be attained should be defined before operations begin. There is no standard clean-up level. Cleaning a popular tourist beach until it is spotless can therefore sometimes be justified. However, removing the last trace of pollutant from a natural site is not reasonable, especially if the price to be paid for this is the destruction of the flora and fauna the pollutant spared. The aim is therefore to reconcile ecological and socio-economic constraints.

In other words, aim to come to a consensus between the different operators on:

- what is acceptable in terms of pollution from an ecological, economic and political point of view
- what is feasible in terms of clean-up from a technical, financial and ecological point of view.

Once the aims and limits of response have been established, the clean-up techniques defined and accepted, the worksite carefully and sensibly organised, and responder safety guaranteed, clean-up operations can begin.



Manual clean-up site



Mechanical clean-up on riprap



Cleaning polluted sites

Actions

Clean-up operations generally include three phases.

► Phase 1: initial recovery

This initial phase involves removing, as rapidly as possible, large accumulations of pollutant and various oiled materials (sediment, litter, seaweed etc.), in a bid to:

- limit the spread of the pollution, by preventing the risks of stranded pollutant being remobilised by the sea as far as is possible
- limit ecological impact, by reducing the duration for which the pollutant is in contact with the environment

► Phase 2: final clean-up

In the second phase, once all threats of major new arrivals have been eliminated, final clean-up operations can be envisaged if necessary. This involves deploying techniques with a varying degree of sophistication to remove residual pollutant which is harmful to either the ecological or the landscape function of the affected sites (pollutant trapped in riprap, residual micro-tarballs on a tourist beach...). These operations are generally implemented by specialised companies.

► Phase 3: site rehabilitation

When clean-up operations are completed, the site must be rehabilitated as quickly as possible: fill in trenches, remove stakes and barrier tape... to enable former uses to resume. If the site has suffered damage (storage area, access points), restoration measures can be taken (set-aside).

FOR MORE INFORMATION

Cedre's Emergency Response Department has a 24/7 operational service to advise response managers on applicable response methods and techniques, equipment to be used and environmental precautions to be taken.



+33 (0)2 98 33 10 10

ONE SHEET PER
WORKSITE

MUNICIPALITY:

DATE:

SITE:

to be sent each evening to fax n°

Daily worksite record sheet

PERSONNEL		TECHNIQUES (3)	EQUIPMENT USED			POLLUTED WASTE	ADDITIONAL COMMENTS	EXPECTED REQUIREMENTS FOR NEXT DAY
NUMBER	ORIGIN (1)		QUANTITY	TYPE (2)	ORIGIN (1)	QUANTITY (m ³)	NATURE (4)	INCIDENTS, BREAKDOWNS, TEAM CHANGES

ORIGIN (1)		TECHNIQUES (3)	TYPE OF EQUIPMENT(2)			NATURE OF POLLUTANTS (4)
Equipment* Municipality Nearby municipalities brigade, stockpile... Civil protection, army, private* other*	Personnel* same as equipment + <ul style="list-style-type: none"> Local fire brigade Nearby fire brigades Municipality reserve Volunteers 	Manual collection Mechanical sand screening Pressure washing	Heavy machinery earthmoving equipment (e.g. power shovel) farm machinery (e.g. tractor, trailer...) water supply means Tyrolean traverse nautical means, other...	Specialised equipment booms, skimmer sand screeners, pressure washers, transfer pump, impact hose storage: tanks, containers, big bags... suction pumps...	Disposable products geotextile, sorbents washing agents other*	Liquids to pastes Heavily polluted solids Lightly polluted solids Polluted stones Polluted sorbents/nets Polluted seaweed Polluted litter
* specify						



Tool Sheet



Decontaminating workers, equipment and vehicles

Aims

During clean-up operations, PPE and response equipment are contaminated by the pollutant. Before leaving the worksite, they must be decontaminated to:

- ▶ Avoid spreading the pollutant to uncontaminated areas
- ▶ Ensure at least a minimum comfort level for operators after each work session (transport, meals...),
- ▶ Prolong the equipment's lifetime
- ▶ Reduce the volume of hazardous industrial waste (decontaminated equipment becomes ordinary waste, up to 5 times cheaper to treat).

All persons leaving the worksite **MUST** use the decontamination area.

Equipment and actions

▶ Preparing the decontamination area before beginning operations

Identify a dedicated area near the site exit. Lay a polythene sheet and attach it using barriers or stakes. Cordon off the area using barrier tape. Set up:

- A boot wash with washing agent harmless to humans, cloths or sponges
- Two bins for disposal of used, oiled and clean equipment
- A tray (1 to 2 m³) with a washing agent to soak small equipment

Organise the set-up from dirtiest (entrance) to cleanest (exit).

▶ Decontaminating workers

- Clean boots by going through the boot wash.
- Clean stains on coveralls or waterproofs by scrubbing with a cloth dipped in cleaning agent.
- Clean oiled skin: eliminate as much oil as possible with paper towels, then rub residual traces with an oily product (cooking oil, vaseline, butter...); then clean the skin with warm water and soap. Do not use solvents (white spirit, gasoline, diesel...) or abrasive products.

▶ Decontaminating small worksite equipment

- Soak the tools in the tray provided. If necessary, unstick the pollutant by rubbing with sorbents.

▶ Decontaminating machinery

Machinery (power shovels, sand screeners...) must also go through a dedicated, oiltight decontamination area. Tyres should be rinsed in hot water with a pressure washer and the washing effluents collected in a trench below. After settling, the pollutant can be recovered:

- using sorbents in the case of small quantities.
- by pumping it off (vacuum truck, slurry spreader) in the case of large quantities.



Sorting and storing waste

Aims

The aim of primary storage is to gather waste collected from one or more clean-up sites located in the immediate vicinity, before evacuation to an intermediate storage site or a treatment unit. It is designed to:

- ▶ gather waste on a non-sensitive site, prepared for this purpose,
- ▶ roughly sort the polluted waste collected by type (unpolluted worksite waste / pollutant / oiled solid waste / plant waste / birds...) and possibly rough pre-treatments (settling...)
- ▶ control the differences in flow between input and output (transport / treatment).

Actions

Identifying a site

For small quantities (< 10 m³), the ideal solution is a waste reception centre. For larger volumes, the site is selected when the worksite is set up, based on a compromise between the following criteria:

- Sufficient surface area (at least 100 m², flat, good load bearing capacity, outside of floodable areas)
- Near and accessible from sites on the shoreline
- Near and accessible to road network
- Sufficiently far from residential areas (at least 50 m),
- Low ecological sensitivity (prioritise concrete car parks).

Warning, if this storage site exceeds 100 m³, it must be subject to a declaration.

Preparing the site

- Protect the ground using geotextiles and oiltight films (tarpaulins).
- Regulate waste inflow (prohibit the deposit of waste from sources other than the clean-up site).
- Ensure supervision of access and traffic to avoid oiling unaffected areas: ban public access, mark out tracks for responders and cover with geotextile, reinforced tracks for vehicles.
- Provide as many containers as there are waste categories. Ensure that the container is compatible with the type of waste. Facilitate sorting by placing a sign indicating its contents on each container.

Managing the site

- Protect storage facilities from rain using lids or tarpaulins. Channel run-off (gutters).
- Regularly evacuate waste to prevent the site from becoming backlogged.

Rehabilitating the site

The site must be cleaned and restored as soon as worksites have closed. Otherwise, there is a risk of a wild dump site being created.








Assignment Sheet



Sorting and storing waste

Equipment

Equipment should be chosen and set up according to the site and the characteristics of the materials to be collected (nature, viscosity, volume...). The table below presents the different possible storage methods.

	Type of container	Type of waste	Favourable sites	Implementation	Observations
	In bulk or in plastic bags (100 L max.) on tarpaulins on the ground	Solids, litter	Platform on slight slope with a trench to recover leachates and run-off.	Place bags on a tarpaulin to prevent them from being punctured.	Temporary storage only (daily transfer mandatory).
	Buckets (10 L), bins (30 to 100 L), wheely bins or containers (150 L to 1 m ³)	Pastes, solids	All types of sites	Place buckets or bins on a platform covered with a tarpaulin.	Wheely bins and containers have a lid which is useful against rain.
	Big bags (0.5 to 2 m ³)	Pastes, solids	All types of sites	Can be lined with a plastic sheet to make it more oiltight.	Can be crane-lifted, air-lifted, reused.
	Skips (10 to 30 m ³)	Solids, litter	All types of sites	Protect the ground using geotextile + tarpaulin. Protect the inside of the skip with a tarpaulin.	Can be crane-lifted.
	Trenches (50 to 200 m ³ ; depth < 3 m)	Liquids and pastes	Loose ground	Dig a trench or build a raised trench. Artificially protect using geotextiles and geomembranes.	Significant mark on the environment.
	Self-supporting flexible tanks (1 to 40 m ³)	Liquids	Flat surface		Enables initial settling. Available in fire stations and spill response stockpiles.
	Flexible containers with metal structure (10 to 100 m ³)	Liquids	Flat surface		Specialised equipment available from spill response stockpiles. Certain models can evacuate settled water via a valve in the bottom of the tank.

photographs © Cedre



Transporting and eliminating waste

Aims

Waste is stored near clean-up sites (primary storage) or deposited on a site belonging to the municipality (technical base, waste reception centre...), and must then be transferred to facilities able to eliminate or recycle it.

This oiled waste is considered as hazardous waste; it must therefore be transported and treated as such, and should be dealt with by specialised companies.

There are several treatment methods (incineration, biological treatment...), depending on the waste composition and type of pollutant. As companies able to treat this type of waste are not present in all regions, the cost of transport can be considerable; a compromise must therefore be reached between what is feasible and what is financially acceptable.

Actions

- ▶ Identify, on the one hand, companies able to treat waste (incineration plants specific to hazardous waste, cement works, physico-chemical treatment plants...) and, on the other hand, the companies certified to collect/transport it. Note that there are also companies which deal with waste from collection to treatment.
- ▶ Ask for a quote from the companies identified (on the basis of the volume to be treated, its composition and its packaging) and contact those selected.

Waste traceability is ensured using Hazardous Waste Tracking Slips (HWTS). The HWTS is the proof that the waste has indeed been treated or recycled. It is one of the relevant documents to be kept.

Based on the authorities' decision, assistance from State services is possible, especially in the choice of treatment(s).

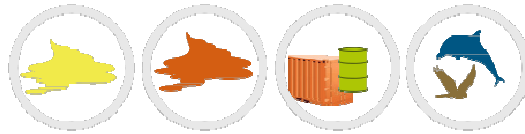


FOR MORE INFORMATION

Find the "Waste Management Guide" produced in the frame of ARCOPOL project
In English: <http://www.arcopol.eu/arcopol/fichaDocumento.aspx?id=59>
In Spanish: <http://www.arcopol.eu/arcopol/fichaDocumento.aspx?id=60>

Or the document titled: "Salvage of the MSC Napoli. Review of waste management operations and lessons learned" on
<http://www.arcopol.eu/arcopol/fichaDocumento.aspx?id=71>

Assignment Sheet



Ensuring internal, institutional and media communication

Aims

Ensuring good communication is an essential component of crisis management. If poorly conducted, it can discredit operational response, even if response has been carried out efficiently. Worse still, a lack of communication can generate a host of rumours. It is therefore important to communicate as early then as regularly as possible using the media as a vector to convey the desired messages.

Actors

- ▶ The local authority for institutional communication.
- ▶ The communication officer (councillor or local government agent) to prepare press releases, coordinate internal and external communication and ensure relations with the media.
- ▶ The switchboard for public information.

Actions

Internal communication

- Organise a situation update, at least once a day, with local government agents in charge of the different aspects of crisis management (field operations, logistics, legal and financial management) and invite the communication officer. Following the briefing, write up a report, summarising the elements to be communicated to the media.
- Convey these elements to all local government agents (mailing list, display board).

Institutional communication

- Keep the institutional partners regularly informed (authorities, emergency services, local council, municipality...) of changes in the situation.
- Send them (with delivery status notification) reports of situation update briefings.

Media communication

- Clearly identify a person, councillor or local authorities' officer, who can speak to the media.
- Issue instructions so that all agents contacted by the media direct them to this person (and do not communicate directly with the media).
- Communicate as early as possible. Do not wait to have resolved the problem or to obtain all the information.
- Only indicate the main information and proven facts. Avoid hypotheses, suppositions and rumours.
- Use the media (press, radio, TV) as a vector to convey the message to the local population (safety instructions, operations conducted, means deployed...).

Informing the public

- Prepare, and regularly update, a clear, concise and accurate message on the nature of the event and the safety instructions to be followed. For popular tourist areas or areas near an international border, translate the message into the relevant foreign language(s).
- Convey this message using the municipality's own means:
 - Local authorities' switchboard and reception (response to public inquiries)
 - Municipality or tourist office website
 - Notice board at local authority offices and on pollution site



Press releases



General rules on press releases

- Stick to the facts (no interpretation).
- Be concise and accurate (one sentence per idea, avoid excess information).
- Specify the context, the type of risks (if known) and the exact instructions.
- If the information is not yet available, this should be stated. It is better to convey a messaging saying "we currently have no details on the incident but as soon as we have more information, you will be immediately informed" than to say nothing.
- Make sure messages are consistent (avoid rushing the first message).
- Do not be alarmist or optimistic.
- Provide regular information (daily in the case of arrivals of tarballs; hourly in the case of an HNS spill requiring populations to stay indoors).

Source: Guide pratique d'élaboration du plan communal de sauvegarde.

Assignment Sheet



Compensation - General framework

Objectives

Given that most accidental spillage events may cause damage of all kinds for local authorities, the legal and financial dimensions must be anticipated before any pollution phenomenon occurs and must be taken into account as soon as the alert is confirmed and until the operations to respond to the spill are complete. A pollution response plan is incomplete if it does not include the compensation issue.

The claimants must always prove the damage they claim if they want to obtain compensation within any context. Therefore, they must build up a complete and supported application which will justify and explain their compensation claim.

As far as possible, the application will be composed of different types of documents, which are outlined in the following datasheets.

Actors

- ▶ Upstream phase: person responsible for putting in place the pollution response plan. When the crisis begins: appoint someone responsible for compensation, who will work with the technical managers and elected representatives.
- ▶ Bailiff

Action

- ▶ Integrate the “compensation” aspect in the preparation of local plans and strategies to respond to pollution: consider the organisation to be put in place if a crisis occurs, in particular, clearly identifying the person who will be responsible for putting together the compensation application.
- ▶ To support this person, provide the possibility of signing a contract with one or more experts⁽¹⁾ to put together the compensation application, if justified by the scale of the pollution, and identify in advance the people or network likely to provide this expertise. Consider the possibility of creating a team of experts together with other local authorities. Anticipate by preparing standard contracts (in keeping with public contract regulations and using specific emergency mechanisms).

(1) Academics, legal counsel, consultants, design offices, associations



The practical information provided in the following datasheets applies to all compensation applications, except for claims for damages related to image or other moral damage, regardless of the nature of the pollutant and the compensation context. This “basic application” may be complemented by specific elements for each situation and according to the legal requirements.



Compensation - Before the crisis

Anticipate for increase effectiveness

Objectives

In addition to the general organisation, a certain number of elements may be prepared in anticipation of any crisis. Creating these documents and keeping them up-to-date will increase effectiveness and save time when putting together the compensation application.

Actors

- ▶ Piloting by the elected representative or person appointed in the “compensation” part.
- ▶ The collection and preparation of many of the documents below may be delegated to temporary staff (interns, students, etc.).

Action

- ▶ Build up a local area presentation sheet (see datasheet ...):
- ▶ Provide a calculation method to assess the cost of equipment and keep to this method (there are several methods available, including those provided by the EMSA guide or the national federation of public works in France, IOPC manual, for example).
- ▶ Anticipate public contracts for the supplies, work or services that may be necessary by preparing standard contracts, respecting public contract rules and supported by emergency procedures.
- ▶ As far as possible: establish an inventory of the studies and information sources available concerning the authority and its coastline (for example: studies used for site classification; academic work; social, economic and environmental data; Government services; associations, etc.).

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Tool Sheet



Proposal for the structure of a local area presentation sheet

1. GENERAL PRESENTATION OF THE LOCAL AREA

- Characteristic elements of the local area: population, economy, etc.
- Significant sea-related economy elements (tourism, ports, fishing, leisure activities, etc.).



Suggestion: If tourism is an important sector for the local area, and if there are no other information sources for tourist statistics, regular beach visitor counts could be introduced (at least annually and for the main beach) with dated photos.

- Detailed presentation of sea-related facilities and infrastructure (ports, marinas, etc.).

2. GEOGRAPHICAL PRESENTATION OF THE LOCAL AREA

- Physical and geographical configuration of the local area, providing precise maps;
- Presentation of the coastline:
 - Length of coastline;
 - Surface and type of intertidal zone;
 - Elements on sediment and rock formations;
 - Elements on the organic characteristics of the coastline (flora, fauna, natural habitats, etc.).

3. NOTABLE ELEMENTS WITHIN THE LOCAL AREA

Description of notable areas and locations of all kinds (natural zones, cultural sites, etc.) with reference to classifications where applicable (reserves, Natural 2000 sites, etc.).

4. PHOTO LIBRARY

Photographs of the notable sites within the local area and its coastline to keep a record of the condition of the coastline. It would be useful to update the photo library once a year.



Compensation - During the crisis

Preserving the community's interests

Objectives

The compensation application must be created as the crisis unfolds. The documents will be collected during the pollution management period and may be put together later.

Actors

- ▶ Pairing: elected representative and person responsible for compensation
- ▶ Legal police officer: mayor, police...
- ▶ Bailiff where applicable
- ▶ Sworn agent: coastline guardian, etc.

Action

- ▶ **Declare, certify or record the pollution observed**, after each mass arrival of pollution (see maritime pollution observation template tool sheet, etc.) 25
- ▶ **Contact the representative of the ship's owner**, their insurance company or the IOPC experts (Government departments may act as a relay for this) to discuss the response techniques adopted, get advice and stay informed of the progress of the work and costs.
- ▶ **Register an official complaint**, and, where possible, when the ship's owner is known and represented, **negotiate with them directly for the financial cover of the clean-up operations**
- ▶ Keep a **site datasheet (see datasheet)** up-to-date at a suitable rate in terms of the nature, frequency and scale of pollution. Centralise and conserve these datasheets. Calculate the costs based on these datasheets (staff and equipment). 17
- ▶ **Collect and archive:**
 - The evidence that demonstrates the reality and scale of the pollution: reconnaissance datasheets, observations, expert reports, samples, analyses, photos and films.
 - Receipts for all expenditure: order forms, invoices, payslips, timesheets for the agents involved, employment contracts for temporary agents, etc.
 - The documents that provide evidence of the rigorous management of the crisis and which justify the choices made: minutes, decision statements, situational analyses, expertise reports, municipal decrees, etc.
 - Press articles and, where applicable, video images (TV news, etc.).
- ▶ Keep a **log** containing all the events and operations carried out from the start of the pollution.
- ▶ **Maintain an active relay point** with the other local authorities affected, as well as with the Government departments.

Tool Sheet



Coastal pollution observation report



Note: Local authorities are advised to establish a pollution observation report from the very first day the pollutant arrives on the shoreline and to request that a police report is drawn up. Thereafter, if the arrival of pollution extends over the following days, the local authority may establish as many pollution observation reports as required to provide evidence of the reality and recurrence of arrivals.

Local authority's logo

Given that the shoreline of the municipality of was affected by marine pollution on (date), I, the undersigned,, Mayor of (name of municipality), by virtue of police power, hereby establish today, at (time), a detailed report of observations.

1. OUTLINE OF OBSERVATIONS

Succinctly outline the source of the alert (local authority staff, passers-by, administration, neighbouring authority etc.), the dates of arrivals of pollutant on the shoreline and whether measures have already been taken in the local area.

2. DESCRIPTION OF THE POLLUTION

Locate and number on an OS map all the sites mentioned below and append this map to the report.

For each coastal area (beach, cove, bay...) affected by the pollution:

- indicate the place name and exact time of the site visit by the local authority
- describe the site: type of shore (fine-grain sand beach, marsh, cliff...), site size
- describe the type of pollutant observed: oil, wood, drums, containers...
- describe the extent of the pollution: quantity, percentage cover... (see technical datasheets produced by *Cedre*)
- attach date and time stamped photographs of the observed pollution
- specify whether a site closure order has been established (if so, take a photograph of the display board)
- specify whether clean-up actions have been conducted or are in progress. If so, describe them briefly.

Signed in, on

The Mayor

Signature + stamp



Compensation - After the crisis: Submitting the application

Objectives

After the crisis, the compensation application will be drafted based on elements prepared in advance or collected during the crisis. The quality of the application's presentation is very important. The guiding principle which governs the composition of the application may be summarised as follows: each expense must be supported and justified by the necessary receipts.

Actors

- ▶ Person responsible for compensation, working closely with the local elected representative concerned
- ▶ Where applicable: local authority's legal counsel

Action

Physically put together an application

- ▶ **Obtain the compensation form from the insurance company and fill it in**, indicating in particular the source of the pollution (name of the ship, for example); the name of the body making the claim, their legal representative and their address; a summary of the claim which explains how the local authority has been affected, with a summary of the sums claimed by category

Complete with

- ▶ The event log
- ▶ The presentation of the local area
- ▶ A structure with a table of contents with links to the different pieces of evidence for each cost category (invoices, site datasheets, staff datasheets, payslips, equipment used, etc.)
- ▶ The photographs (dated, commented and located) and press cuttings collected.

If the pollution affects several local authorities: **contact the other local authorities and departments/agencies** affected or involved to check the consistency and coordination of claims and costs.

- ▶ **Send the application** to the ship owner's insurance company (P&I Club type insurer).

For oil pollution covered by the CLC/IOPC system: the application must be sent to the IOPC within 3 years following the date of the damage observed.

This application will also be the basis for the compensation claims that may be sent to the Government and the judge, especially if the ship's owner is unknown.



Compensation - Preparing to assess the ecological damage



The rules relating to the admissibility of ecological damage and the person(s) liable to claim it are set by the legal system specific to each State. The local authorities, with the assistance of their legal counsel, must determine whether this action is actually open to them.

Within the context of the ARCOPOL project, linked to other research work, two methods applicable to European local authorities have been selected to assess environmental damage. These are the:

- ▶ “Reasonable compensation value” method. This applies if the authority is responsible for managing the coastline and if the pollution is visible (oil in particular). It involves assigning a value per m² of coastline polluted, a value which will vary according to the nature of the area (ecological sensitivity, degree of damage) and the type of pollutant.
- ▶ “Restoration costs” method: this applies if the local authority takes on the rehabilitation of the polluted sites and if the pollution is extensive or affects particularly sensitive zones.

Objectives

This operational datasheet seeks to present the operations which must be carried out during the crisis to preserve and collect the elements required to implement one or other of the methods presented above.

Reminder

The local authority will have carried out an inventory of the studies relating to flora, fauna and habitats when preparing its presentation datasheet and in collecting the maps required (Natura 2000 sites, eco- logical monitoring networks, etc.).

Action

- ▶ Enlist experts where possible. In particular, they may very quickly establish, by assessing the pollution, whether the restoration of the polluted site is an appropriate option.
- ▶ Take samples, in affected and non affected zones, in the water, sediment and, where applicable, in the air. Make sure that a reliable sampling, conservation and analysis protocol is respected.
- ▶ Collect and conserve all evidence likely to demonstrate damage to marine ecosystem elements (photos of flora and fauna affected, impact on sentinel species, etc.).
- ▶ If possible with assistance from experts, set up observation teams to draw up a map of the affected coastline, especially the sensitive areas (use photos as proof).

If the local authority has access to information relating to the pollutant’s drift, it may use them to anticipate its observations (photographs and samples from the zone before the pollution arrives).

NOTE



For oil pollution, the IOPC Funds may compensate for some of the studies that seek to assess damage to the environment and identify the restoration methods.



Feedback

Aims

Feedback consists of methodically and rigorously analysing the management of an incident so as to draw lessons for the future. It constitutes an opportunity to share, learn and progress for all those involved in the crisis.

Actors

- ▶ Leader: local councillor or municipal agent in charge of the local contingency plan, in partnership, in a spirit of objectivity, with an external agent, if possible experienced in crisis management (fire or police officer for instance).
- ▶ Participants: all those involved in managing the incident, whatever their hierarchical level and their status (municipal agents or councillors, volunteers, representatives of associations...).

Actions

A 5-stage approach, resulting in the elaboration and implementation of an action plan, is recommended:

- Collect all information required to chronologically reconstruct the order of events.
- Conduct individual interviews with those involved to supplement this chronology with witness accounts.
- Formalise the joint history, by dividing the management of the spill into sequences and analysing for each one: the context of the situation, the hypotheses considered, the decisions and actions taken, the resulting effects and consequences.
- Organise a review meeting.
- Formalise an action plan (establishment or amendment of contingency plan if necessary).

Directory

This directory includes a list of reference organisations in France as an example. Seek for similar organisation in your country of reference.

- ▶ **ADEME** (Agence de l'Environnement et de la Maîtrise de l'Énergie) - Tél. : 02 41 20 41 20 - Fax : 02 41 87 23 50 - www.ademe.fr, rubrique l'ADEME en régions / Nos délégations régionales.
- ▶ **Agence Régionale de la Santé (ARS)** - www.ars.sante.fr, rubrique « Les ARS dans votre région ».
- ▶ **Centre antipoison** - www.centres-antipoison.net. Centre antipoison de Rennes - Tél. : 02 99 59 22 22.
- ▶ **Cedre** (Centre de Documentation, de Recherche et d'expérimentation sur les pollutions accidentelles des eaux) - Tél. 24h/24 : 02 98 33 10 10 - www.cedre.fr.
- ▶ **Centre de recherche sur les mammifères marins (CRMM)** -Tél. : 05 46 44 99 10 - crmm.univ-lr.fr
- ▶ **Centre de Sauvegarde** - Union Française des Centres de Sauvegarde de la Faune Sauvage - uncs.chez.com/urgence.htm, rubrique « urgence »
- ▶ **CROSS** (Centre Régional Opérationnel de Surveillance et de Sauvetage)

CROSS GRIS-NEZ - Manche Est

Tél. : 03 21 87 21 87 - Fax : 03 21 87 78 55

CROSS JOBOURG - Manche centrale

Tél. : 02 33 52 72 13 - Fax : 02 33 52 71 72

CROSS CORSEN - Manche Ouest

Tél. : 02 98 89 31 31 - Fax : 02 98 89 65 75

CROSS ETEL - Atlantique

Tél. : 02 97 55 35 35 - Fax : 02 97 55 49 34

CROSS MED LA GARDE - Méditerranée

Tél. : 04 94 61 71 10 - Fax : 04 94 27 11 49



- ▶ **Ifremer** (Institut français de recherche pour l'exploitation de la mer) - www.ifremer.fr, rubrique « l'Ifremer / implantations ».
- ▶ **INERIS** (Institut National de l'Environnement industriel et des risques) - Tél. d'urgence : 03 44 55 69 99 - Tél. Hors urgence : 03 44 55 66 77 - www.ineris.fr
- ▶ **INRS** (Institut National de Recherche et de Sécurité pour la prévention des accidents du travail et des maladies professionnelles) - www.inrs.fr
- ▶ **Météo France** - www.meteofrance.com
- ▶ **ONEMA** (Office National de l'Eau et des Milieux Aquatiques) - www.onema.fr
- ▶ **LASEM** (Laboratoire d'Analyses, de Surveillance et d'Expertise de la Marine) : voir Préfecture maritime compétente.
- ▶ **Ligue pour la Protection des Oiseaux (LPO)** - Tél. : 05 46 82 12 34 - Fax : 05 46 83 95 86 - www.lpo.fr

► **Préfectures maritimes**

Préfecture maritime de l'Atlantique - premar-atlantique.gouv.fr

Préfecture maritime de la Manche et de la mer du Nord - www.premar-manche.gouv.fr

Préfecture maritime de la Méditerranée - www.premar-mediterranee.gouv.fr

► **Stock Interdépartemental POLMAR-terre**

<http://www.cetmef.developpement-durable.gouv.fr/polmar/>

Centre de Dunkerque (Nord, Pas de Calais, Somme) Tél. : 03 28 23 57 40 - Fax : 03 28 21 02 84.

Centre du Havre (Seine-Maritime, Eure, Calvados, Manche) Tél. : 02 32 74 92 71 - Fax : 02 32 74 92 74.

Centre de Brest (Ille-et-Vilaine, Côtes-d'Armor, Finistère) Tél. : 02 98 33 41 00 - Fax : 02 98 33 41 15.

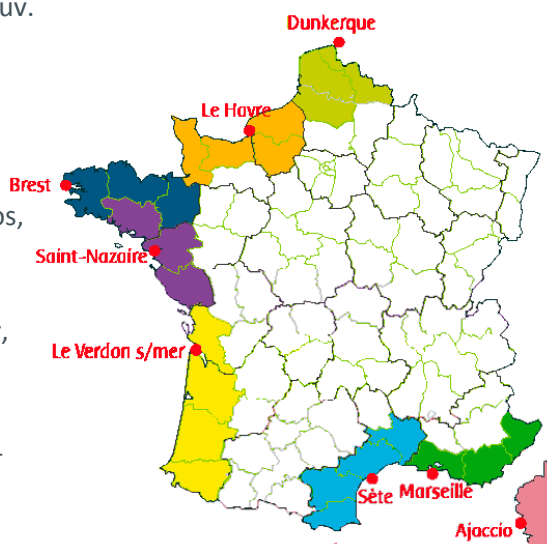
Centre de Saint Nazaire (Morbihan, Loire-Atlantique, Vendée) - Tél. : 02 40 90 00 78 - Fax : 02 40 90 44 01.

Centre du Verdon (Charente-Maritime, Gironde, Landes, Pyrénées-Atlantiques) Tél. : 05 56 73 14 71 - Fax : 05 56 73 36 71.

Centre de Sète (Pyrénées-Orientales, Aude, Hérault, Gard) Tél. : 04 91 99 40 61 - Fax : 04 91 99 41 77.

Centre de Marseille / Port-de-Bouc (Bouches-du-Rhône, Var, Alpes-Maritimes) - Tél. : 04 91 99 40 61 - Fax : 04 91 99 41 77.

Centre d'Ajaccio (Haute-Corse, Corse-du-sud) - Tél. : 04 95 10 68 40 - Fax : 04 95 10 68 48



► **RNE** (Réseau national échouage)

Coordination : CRMM (Centre de recherche sur les mammifères marins) - Tél. : 05 46 44 99 10 - crrmm.univ-lr.fr

► **Vigipol** (Syndicat mixte de protection du littoral breton) - Tél. : 02 96 15 84 90 - Fax : 02 96 15 84 91 - www.littoral-coastlines.com

Acronyms and abbreviations

- CC – Command Centre
- Cedre – Centre of Documentation, Research and Experimentation on Accidental Water Pollution
- CLC - Civil Liability Convention
- DEO – Director of Emergency Operations
- GC-MS – Gas phase Chromatography - Mass Spectrometry
- GPS – Global Positioning System
- HNS - Hazardous and Noxious Substances
- HWIP – Household Waste Incineration Plant
- HWTS – Hazardous Waste Tracking Slip
- IOPC Funds – International Oil Pollution Compensation Funds
- MRCC – Marine Rescue Coordination Centre
- MSDS – Material Safety Data Sheet
- OSC - On Scene Commander
- OSCP - Oil Spill Contingency Plan
- PPE – Personal Protective Equipment

For more information

- ▶ ARCOPOL: Atlantic Region's COastal POLLution response <http://www.arcopol.eu/arcopol>
- ▶ ARCOPOLplus: Improving maritime safety and Atlantic Regions' coastal Pollution Response through technology transfer, training and innovation. <http://www.arcopol.eu>
- ▶ EROCIPS: Emergency Response to Coastal Oil, Chemical and Inert Pollution from Shipping <http://www.arcopol.eu/arcopol/docuErocips.aspx>

For oil pollution covered by the CLC/IOPC Funds

- ▶ IOPC Fund Claims Manual / www.iopcfund.org
- ▶ IPIECA/ITOPF guide: "Oil spill compensation – A guide to the international conventions on liability and compensation for oil pollution damage" / www.ipieca.org

For a general approach:

- ▶ EMSA guide "EU States Claims Management Guidelines. Claims arising due to maritime pollution incidents" / www.emsa.eu

For analysis of compensation:

- ▶ Complete ARCOPOL reports (activity 6): <http://www.arcopol.eu/arcopol/buscaDocu.aspx?act=A6>

In France:

- ▶ Centre of Documentation, Research and Experimentation on Accidental Water Pollution (Cedre) www.cedre.fr
- ▶ Centre d'Etudes Techniques Maritimes et Fluviales (Cetmef) http://master.cetmef.developpement-durable.gouv.fr/polmar/index_polmar2.htm
- ▶ Institut des Risques Majeurs www.irma-grenoble.com
www.mementodumaire.net : informations du maire sur les risques majeurs, les moyens de prévention, la réglementation et les responsabilités en la matière.
- ▶ Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer (MEEDDM) www.developpement-durable.gouv.fr
www.prim.net: portail du MEEDDM sur la prévention des risques majeurs.
- ▶ Ministère de l'intérieur, de l'outre-mer et des collectivités territoriales www.interieur.gouv.fr - rubrique "Sécurité civile"
- ▶ Préfectures maritimes
Préfecture maritime de l'Atlantique www.premar-atlantique.gouv.fr, rubrique « Infos pratiques / Que faire au cas où ? »
www.premar-atlantique.gouv.fr/actualite/dossiers/memento-a-l-usage-des-maires.html
Préfecture maritime de la Manche et de la mer du Nord www.premar-manche.gouv.fr, rubrique « Infos pratiques / Que faire en cas de ? »
Préfecture maritime de la Méditerranée www.premar-mediterranee.gouv.fr, rubrique « Infos pratiques / Que faire au cas où ? »
- ▶ Vigipol <http://www.littoral-coastlines.com>

In the same collection

Involvement of Sea Professionals in Spill Response (awaiting release)
Management of Volunteers in Coastal Pollution Response (awaiting release)
Aerial observation of oil pollution at sea
Use of Sorbents for Spill Response
Response to Small-Scale Pollution in Ports and Harbours
Surveying Sites Polluted by Oil
Using dispersant to treat oil slicks at sea
Oil Spill Waste Management
Vegetable Oil Spills at Sea
Ecological Monitoring of Accidental Water Pollution
Containers and packages lost at sea

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