

Recap

Training on Contingency Planning for Jordan

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Preamble - An introduction to the plan as well as providing aids to navigation and understanding of the plan.

Strategy Section – The scope and statutory requirement for the plan and how it will be implemented. This section should be used for reference and for planning.

Action Section – The means with which to implement the plan – instructions and emergency procedures which allow for rapid mobilisation of resources such as notification flow charts and individual action cards.

Data Section – Supporting information to enable decisions to be made and subsequent actions to be undertaken. Contact details, maps, charts, environmental data etc.

Table of Contents

- Either by section/part or page number
- List of plan holders
- Amendment record
- List of abbreviations
 - Not mandatory but good practice.

- Statutory requirement to maintain a pollution plan
 - Policy statement
 - Environmental statement
 - Purpose of the plan
- Responsibility for upkeep of the plan and its routine review
 - Person nominated as the plan owner.
 - Obtaining approval of statutory consultees and validation.
 - Any other bodies consulted in the production of the plan.
 - Routine reviews of the plan through its life – following incidents or exercises for example.
 - Five yearly revalidation process.
- Geographical boundaries / jurisdiction limits
 - These should be drawn clearly on a map / chart.

- Interfacing contingency plans should dovetail with the port / harbour authority
- Full description of the port/harbour /facility, to include
 - Approach and entrance
 - Hazards – shoals, tides, adverse winds
 - Maximum size of vessels that can be accepted – draught, length, beam
 - Anchorages, berths and moorings
 - Repair and harbour facilities
 - Cargo handling facilities
 - Road and alongside access for vehicles
 - Bunkering arrangements and oils encountered.
 - Annual vessel movements
 - Cargoes shipped through the port and quantities
 - Any special or other activities.

- Summary of risk assessment
 - A risk assessment based on the types of oil/cargo likely to be encountered together with the activities in the port/harbour.
 - The use of a probability v consequence chart may be useful.
 - Include any land-based sources that may impact harbour waters.
- Other organisation responsibilities
 - Details of all authorities and organisations who have a role to play in the event of an oil spill incident should be included within this section.
- Place of Refuge
 - An assessment of the port as a place of refuge noting what type of vessels could perceivably be accepted and under what limiting conditions.
- Health and Safety
 - Responsibility to employees, visitors, contractors and the environment in general.
 - Note special considerations for employees engaged in clean-up activities, especially prolonged campaigns, or in hot weather

- Categories of incident
 - Description of the Tier system
 - Clearly show who has authority to initiate a response and escalate a response from T1 to T2
- Incident organisation
 - The responsibility of key personnel at each Tier, describing the role of the Response Management Team and how, when and why this would be established.
 - Clear indication of who has responsibility in the harbour master's absence
 - Guaranteed response and mobilisation time
 - Identification of responders (contact details to be held in the Contacts Directory)
 - Equipment – type, quantity and location(s).
 - any MoU's used within the response to provide mutual support.
- Incident control arrangements
 - Establishing and identifying a location for the Response Centre

- Introduction to the roles and responsibilities of those who may be involved in a pollution response – e.g First Informant, On-scene Co-ordinator, Incident Manager.
- Courses of action
 - A flow chart (or similar) detailing the required actions and notifications during any type of pollution incident.
- Action Cards
 - The roles, responsibilities, initial and subsequent actions of all personnel likely to be involved (aide-memoir.)
- Call out procedures
 - Details of mobilisation procedures for internal staff and external contractors (Tier 2 response).
- Notification of external authorities
 - Consideration of other authorities who will/may need to be notified.
- Record keeping and reporting
 - Requirement to maintain strict records and inform relevant authorities.

Response Guidelines

- How to establish the true extent of situation by investigating the precise type and quantity of the pollution and if the discharge is ongoing.
- Identify immediate response priorities – mobilising or placing resources on standby. Include, identification of environmental, commercial and recreational sensitivities as collated within the relevant data section of the plan.
- For each priority site, establish which resources will be utilised and how this may include recourse to pre-defined booming plans and/or tactical response plans. (Include access routes and grid references for mobilisation and laydown areas)
- Philosophy and objectives behind pre-agreed strategies for response at sea, within coastal zones and on shorelines including limiting factors/adverse conditions.
- Identification of interim waste storage sites, treatment sites and disposal options.
- A method for predicting the fate of the spilled should be provided which may include the results of modelling exercises, where appropriate.

- If modelling is considered to be a useful predictive tool, those with capability to undertake such a task should be identified.
- Consideration should be given to places of refuge and beaching areas for the stabilisation of stricken vessels.
- Communications
 - Detail communications between internal personnel and external bodies including details of communications between harbour/port/oil handling facility personnel whilst on and off site.
 - Suggest a diagram with job titles and organisation names, method of communication during working hours and outside working hours,
- Press Details
 - Details of media guidelines, including:
 - routing of media enquiries,
 - personnel responsible for talking to the press,
 - location where press will be situated,
 - need for regular SITREPS.
 - Include a draft “holding” statement confirming that an incident has occurred.

- Health and Safety
 - Details of all health and safety related issues, particularly, consideration of specific spill related hazards. Additionally – consideration operations possibly in extreme conditions of heat whilst wearing protective clothing.
- Waste Management
 - The plan must fully comply with the requirements of the Environmental Regulator's policy with regard to the management of wastes in an emergency
 - Any existing waste management plans should be referenced, along with any locations of pre-agreed and approved waste disposal sites.
 - The importance of informing the statutory nature conservation bodies of proposals to dispose of or store oily waste material to ensure that local wildlife sites are not affected needs to be stated here. Proposals for waste segregation and minimisation should be addressed.
 - The environmental regulator will provide guidance as to routes and methods of waste disposal. Any pre-agreements to be recorded in the plan.

- Contact Directory
 - Contact details should not contain names of personnel – only organisation names or job titles.
- Training
 - Training requirements for each role
- Exercises
 - Plans for exercises and feedback
- Environmental, Commercial and Recreational Sensitivities
 - The possible response options
 - The consequences of applying or not applying a technique should be fully discussed and understood by all parties.
 - The potential effect of sea and weather conditions.

- This section of the plan should clearly identify areas of environmental, commercial and recreational sensitivity and their importance including:
 - Identification of different types of shoreline and habitats
 - The response (clean-up) strategies applicable to each one.
 - Prioritisation and impact
 - Relevant details of waste disposal facilities.
 - Access routes – a map would be ideal.
 - Wildlife interests, details of flora and fauna, seasonal affects and locations within jurisdictional limits.
 - Commercial activity details, including fishing, water intakes. fish storage facilities and other mariculture activities.
 - Recreational activity - locations, types and number of vessels using the location and seasonal impacts.
 - Environmental sensitivity mapping. Maps should be clear and illustrate any areas discussed within the environmental section of the plan.

- Counter Pollution Resources
 - Details of available resources.
 - Tier 1, 2 and 3.
 - Details of key holders should be maintained for locked facilities.
- Appendices of Information to support the plan
 - Material Safety Data Sheets for any product likely to be encountered within the location, or as part of the response.
 - Supporting documentation of any contract with a third party.
 - Evidence of consultation.

- 1) Has there been a realistic assessment of the possible threat and of the resources most at risk**
- 2) Have the protection priorities been agreed including available techniques**
- 3). Have the cleanup and protection strategies been agreed and explained**
- 4) Have roles and responsibilities been clearly stated**
- 5). Are the available resources sufficient and has the backup been identified**

- 6). Has the waste management issue been clearly identified**
- 7). Are the initial alerting and evaluation procedures clear**
- 8). Has the communication system been defined**
- 9). Have all aspects of the plan been tested**
- 10). Is the plan compatible with plans for other authorities**



Any questions?

Thank you!

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Objective

- Provides the authority with information on the risks faced by the port
- Enables the Authority to reach decisions about contingency planning and what to do after an incident
- Risk = the probability of something happening x the consequences of the incident.
- Not possible for Contingency Planning to cater for every eventuality that may be encountered, but a full and proper risk assessment will enable an effective response to be mounted in a controlled and efficient manner.

Stage 1 Potential Pollution Assessment

1) Identifying the ships and cargoes likely to be used in the port

This should include:

Vessels	Cargoes	Bunkering
Type, size and traffic density	Types and quantities	Bunkering facilities – fixed or mobile
Collision/Allision – potential and mitigation	Gas, liquid, solid – inherent dangers with each	Types and quantities of bunker operations
Availability of VTS	Cargo handling facilities	Management of bunkering procedures
Tug availability and Pilotage	Incorrect labelling, documentation	Clear instructions in the event of a bunkering failure available to all.
What fuel is carried	Access to cargo manifests	Availability of Tier 1 equipment at the bunkering position.
Limiting environmental factors – winds, tides etc.		Shore tank storage facilities

- 2) Identification of potential hazards in the port that could cause a spill:
 - should include collisions with a ship or berth, spill from bunkering, spills from shoreline operations, spills from cargo loading etc.
- 3) Based on data from previous historical incidents in a port and the operations in the port the probability or likelihood of an incident and spill can be estimated.

4) From this data worst case scenario can be developed on how much pollutant may be released and modelling can be done,

i.e

- loss of a container
- break of a wing tank following a collision
- burst of a pipeline

DWT	collision wing tank	Grounding 2 wing+centre	Bunkers carried
30000	700	3000	1350
50000	1100	5000	5200
70000	3000	12500	6300
100000	5500	21000	7000
200000	10500	45000	8300
240000	15000	60000	12000

Stage 2: Assessing the Risk

The Risk Assessment brings together a list of potential risks should be drawn up together with the potential consequence and likelihood of each.

A Risk Matrix should also be drawn up in order to prioritise the risks.

	Likelihood				
Consequence	1	2	3	4	5
	Rare	Unlikely	Possible	Likely	Almost certain
5 Catastrophic	5	10	15	20	25
4 Major	4	8	12	16	20
3 Moderate	3	6	9	12	15
2 Minor	2	4	6	8	10
1 Negligible	1	2	3	4	5

Sensitivity Analysis of the risk assessment should also be undertaken

- identify where results are particularly sensitive to changed assumptions
- analyse these to see if the risk changes and assess if the risk assessment is robust enough

Stage 3: Assessing Potential Impact

Based on the Risk Assessment an assessment of the impact of the most likely spills can then be made on:

- the environment,
- Any priority habitats and species
- Any use of the port area (Fisheries, industry and recreation)
- Health effect on port workers, visitors and the local population including mortality, morbidity.
- The need to evacuate, relocate or shelter these people
- The economic impact on the port and local industry

- Through modelling the potential spread of the impact can be estimated
- With this information the priority habitats/resources that need to be protected can be identified
- Ways to protect and clean these resources can be identified
- The equipment needed to protect the resources can also be identified and purchased
- Mitigation measures can also be undertaken address any Intolerable risks. This could mean changing operations, bringing in new management options, replacing equipment and increasing training

Strategies to be pre-agreed - based on priorities

Techniques available (may be in combination)

- monitor and wait
- dispersant
- containment and recovery including protective booming
- shoreline cleanup

Each strategy has to consider

- logistic requirements
- limitations of techniques



Any questions?

Thank you!

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