



KYSTVERKET

# TRAINING PROGRAMME FOR HANDLING ACUTE POLLUTION

Training programme for handling

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**KLIMA- OG  
FORURENSNINGS-  
DIREKTORATET**

The Norwegian Climate and  
Pollution Agency



**dsb** Direktoratet for  
samfunnssikkerhet  
og beredskap

Norwegian Directorate for Civil  
Protection and Emergency Planning

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# 1 About the programme in general

## 1.1 Responsibilities, authority and legal basis

The training programme for handling acute pollution will help meet the requirements set forth in the Pollution Control Act regarding preparedness and operations against acute pollution (cf. Chapter 6 of the Pollution Control Act).

Anyone engaged in activities that may lead to acute pollution must ensure that they have the necessary preparedness to prevent, detect, stop, remove and mitigate the impact of the pollution. The preparedness must be in reasonable proportion to the likelihood of acute pollution and the extent of damage and inconvenience that may occur.

Large, onshore-based industrial companies, including refineries and coastal tank facilities have a duty to have emergency response systems and are subject to special emergency response requirements issued by the Norwegian Climate and Pollution Agency (Klif) (formerly the State Pollution Control Authority, SFT)) and have established their own contingency plans.

The petroleum industry also has a duty to have emergency response systems and each operating company is subject to special emergency response requirements from Klif and also requirements that follow from the HSE regulations for the petroleum industry. All operating companies are members of NOFO, the Norwegian Clean Seas Association for Operating Companies, which places material and technical personnel at the afflicted companies' disposal, in addition to being in charge of operational management of operations.

Companies that are obliged to have emergency response systems and to take action in the event of acute pollution arising from their own activities also have a duty to provide assistance when central and local authorities take action.

The municipalities must ensure that there is the necessary preparedness to deal with minor instances of acute pollution that may occur or cause damage within the municipality, and that are not covered by private preparedness. All the Norwegian municipalities cooperate on preparedness through intermunicipal emergency response regions led by inter-municipal committee against acute pollution (IUAs). The Norwegian Climate and Pollution Agency sets requirements for the local authorities regarding preparedness against acute pollution.

The Norwegian Coastal Administration (NCA) has a duty on behalf of the government to maintain preparedness and respond to major instances of acute pollution or the risk of acute pollution that are not covered by private or municipal contingency plans. Primarily, this concerns response to oil spills from ships and shipwrecks or unknown sources. If the responsible polluter is incapable of taking action or does not take adequate measures, NCA may take on responsibility for all or parts of the operation. NCA is also responsible for ensuring that measures are taken against ships that pose a risk of acute pollution.

Being responsible for the government's response to acute pollution, NCA has nationwide administrative authority in the event of acute pollution (cf. Chapter 6 of the Pollution Control Act). NCA must ensure that the government preparedness system is correctly dimensioned at all times. NCA supervises the polluter's management of acute pollution incidents and has the authority to order the polluter to take measures to stop, remove or mitigate the impact of the pollution. NCA is also responsible for coordinating private, municipal and government preparedness against acute pollution in a national emergency response system (cf. Section 43 (3) of the Pollution Control Act).

## 1.2 Purpose of the training programme

The provisions of the Pollution Control Act relating to the duty to maintain preparedness and take action and any requirements pursuant to the Pollution Control Act form the basis for training personnel who will maintain preparedness against and deal with acute pollution, cf. Chapter 1.1. Based on these provisions and requirements, the purpose of the training programme is as follows:

- to ensure uniform competence building in handling acute pollution
- to ensure that the training maintains a proper and desired quality

## 1.3 Target groups for the training programme

The training programme has two target groups:

- enterprises that offer training in handling acute pollution
- personnel who are to receive training in handling acute pollution

Enterprises that offer training in handling acute pollution may be private, municipal or government enterprises. Those who receive training will be personnel who are intended a role in handling acute pollution. Previous knowledge required in order to be able to participate in the training will be defined for each course in Chapter 2.

## 1.4 The validity of the training programme

The training programme will come into effect on 1 January 2011. It is assumed that all courses affected by the training programme will be held in accordance with this by the end of 2011.

The training programme replaces previous training programmes for handling acute pollution issued by the Norwegian Climate and Pollution Agency (Klif, formerly SFT), NCA and the Directorate for Civil Protection and Emergency Response Planning (DSB). This applies to:

- the training programme for the basic shoreline operations course (Revision 1 – 16 January 2002)

- the training programme for the team leader course (Version 2-0, 16/8)
- the training programme for the on-scene commander coast /shoreline course (Version 1-1)
- the training programme for the on-scene commander sea course (Revision 2 – 7/2/2002)
- the training programme for the operations management course (Version 1-0 of 17 October 2007)

The training programme does not change or affect the ordinary basic and management training in the Fire Service and Civil Defence, or training in industrial first response.

The programme replaces existing programmes for the following courses under the direction of the Norwegian Clean Seas Association for Operating Companies (NOFO):

- NOFO oil spill response course
- NOFO oil spill response course for ship crews
- OSC Sea course
- Course in interpretation of remote sensing data
- Course in dispersion
- Course in meteorology

The existing programme will be available on NCA's website at all times.

## **1.5 Requirements for enterprises that offer training in handling acute pollution**

For the training to qualify a person for a role in handling acute pollution, as described in the Pollution Control Act, enterprises that offer such training must ensure that this is provided in accordance with the current training programme. The training programme must be available on NCA's website at all times.

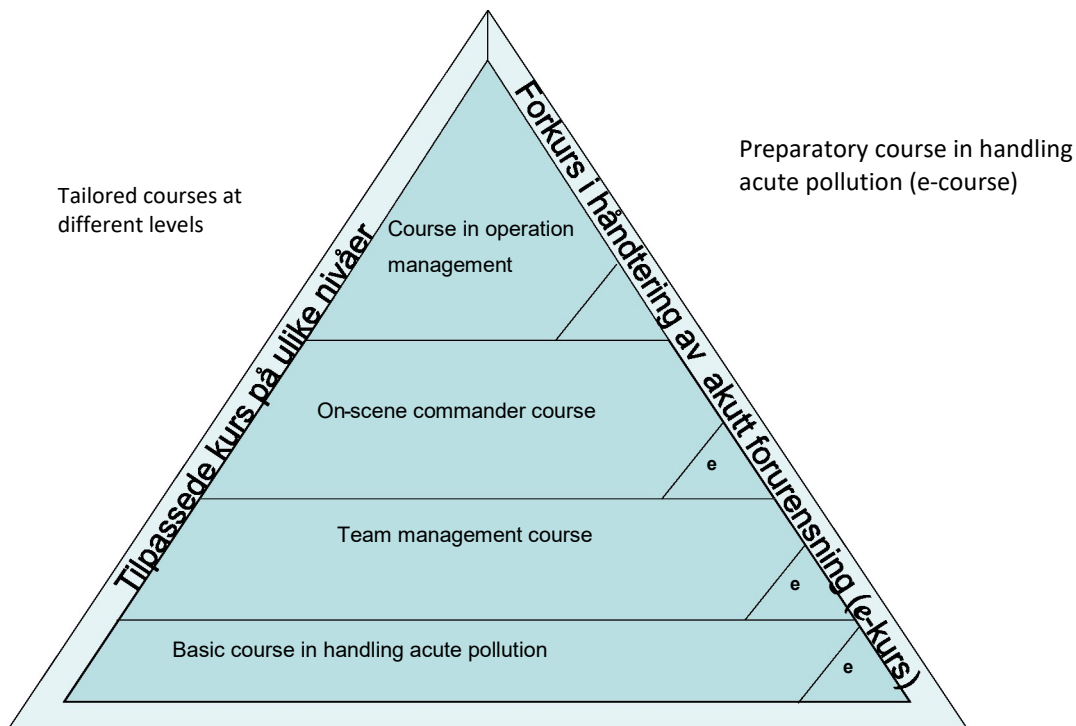
Relevant training institutions must have satisfactory facilities and equipment in order to be able to arrange the courses in accordance with the training programme objectives. During training and exercises, the safety of the course delegates must be ensured in accordance with the application regulations.

## **1.6 The content and structure of the training**

Main objectives have been defined for each of the courses in the training programme and what qualifications the course provides have been described. The courses are composed of sub-topics with learning objectives based on the main objectives. The learning objectives will guide the development of the training. Main elements have been established for each sub-topic.

Satisfactory emergency response system to deal with acute pollution requires that the involved parties have the knowledge, skills and attitudes to enable them to fill their intended role. Therefore, the learning objectives include knowledge, skill and attitude goals.

The courses are part of a training structure as shown in the diagram below. A list of all the subject



areas, sub-topics, learning objectives and main elements is provided in Chapter 3.

## 1.7 Exercises during training

The training has a practical purpose and exercises are an important part of competence building. Exercises for each course have been described under the training programmes in Chapter 2. The term exercise is used herein to describe skills development. The various parties, who are responsible for preparedness and handling acute pollution conduct exercises to maintain, verify and develop knowhow.

## 2 Training programmes for the compulsory courses in the training structure

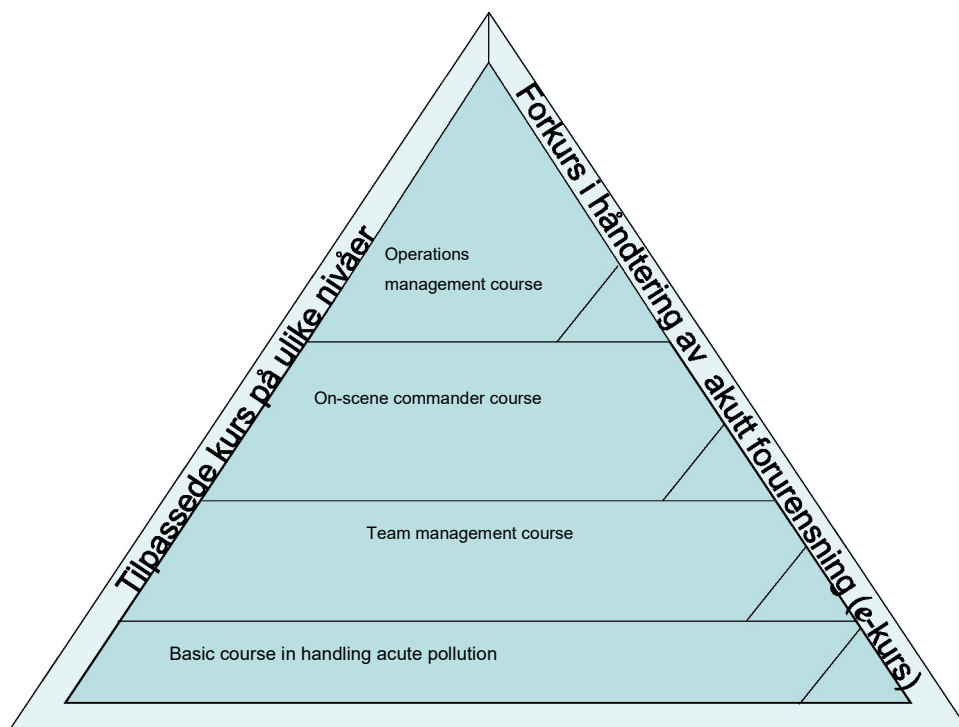
The courses in Chapter 2 of the programme are included in a training structure shown in the diagram below. The courses on the various levels build on each other. It may still be possible to participate in courses at a higher level without having completed a previous course. It is then assumed that the

participants have previous knowledge equivalent to the competence the prior course would have given.

Main objectives have been defined for each of the courses and what qualifications the course provides have been described. The courses consist of sub-topics with learning objectives that support the main objectives. The learning objectives will form a guide for development of the training. Main elements have been defined for each sub-topic. A more detailed description of the courses can be found in the training programmes for each course.

In order for the training to quality for roles in handling acute pollution as described in the Pollution Control Act, enterprises that offer such training must ensure that it is conducted in accordance with the current training programme. The programme must be available on NCA's website at all times.

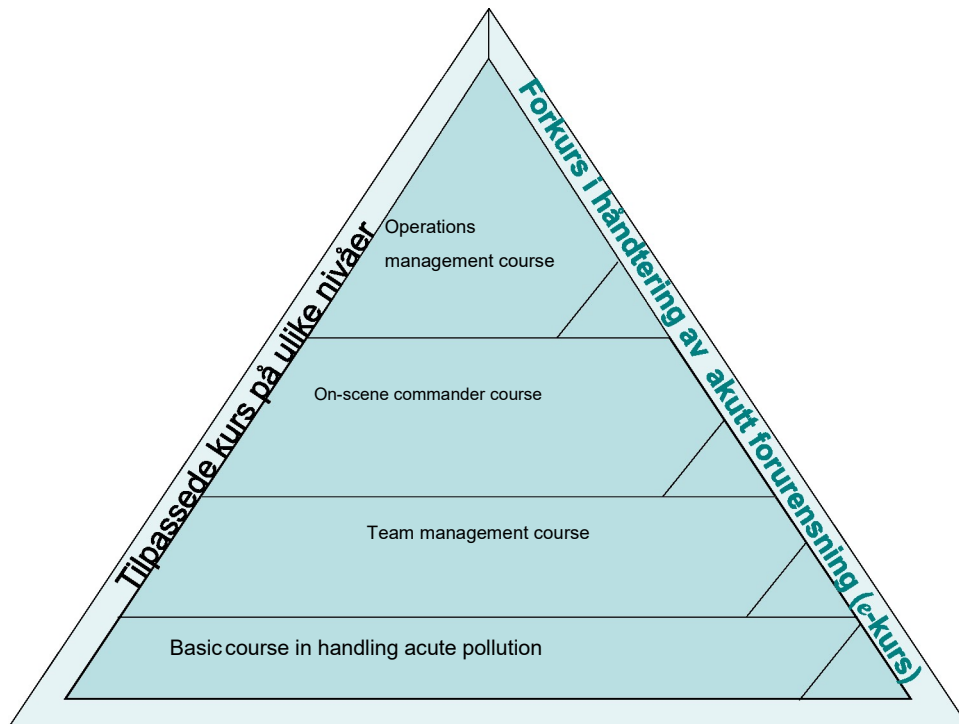
Relevant training institutions must have satisfactory facilities and equipment in order to be able to hold the courses in accordance with the objectives of the programme. During training and exercises, the safety of the course delegates must be ensured in accordance with the applicable legislation.



## 2.1 Preparatory course in handling acute pollution – e-course

This training programme does not include the preparatory course in handling acute pollution. This course is under development as an e-learning course. When the preparatory course is in operation, it will be required that this course has been completed before participation in other courses in the training structure.

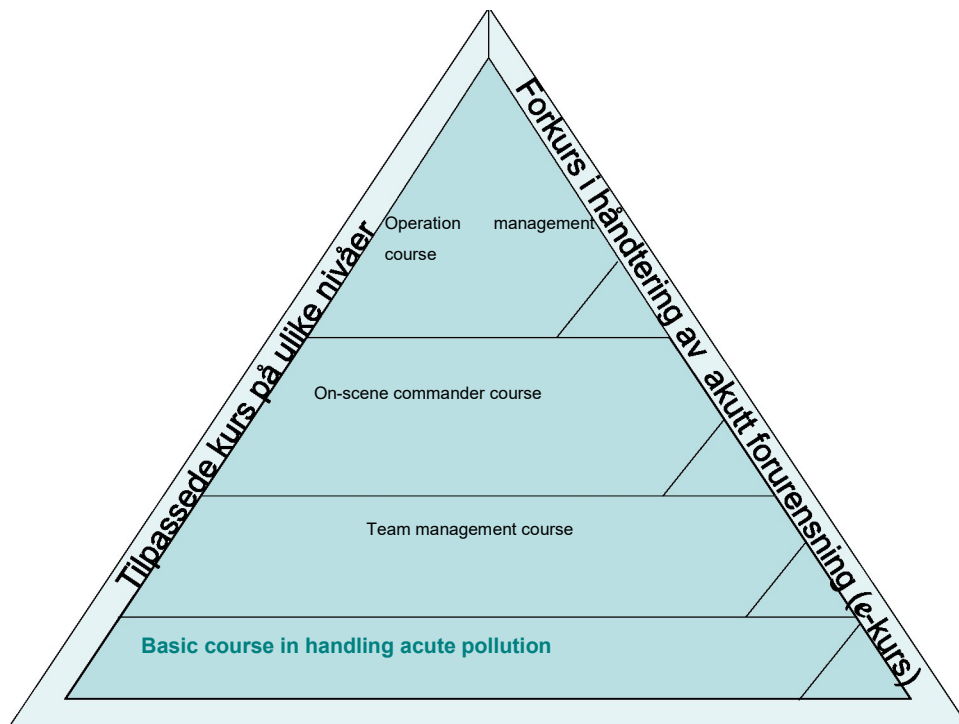




## 2.2 Basic course in handling acute pollution

In order for the training to qualify a person for a relevant role in handling acute pollution, as described in the Pollution Control Act, enterprises that offer the course must ensure that the training takes place in accordance with the current training programme. The training programme must be available on NCA's website at all times.

Relevant training institutions must have satisfactory facilities and equipment in order to be able to hold the course in accordance with the objectives in the training programme. During training and exercises, the safety of the course delegates must be ensured in accordance with the applicable legislation.



### 2.2.1 The course's position in the training structure

### 2.2.2 Main objectives

- The aim of the basis course in handling acute pollution is to provide basis competence to personnel who participate in operations against acute pollution.
- On completion of the course participants will have a basic knowledge of organisation, distribution of tasks, responsibilities and authority within preparedness against acute pollution in Norway
- Have a basic knowledge of handling acute pollution
- Be able to act in accordance with the applicable HSE regulations in the event of an oil spill response operation

The course is made up of sub-topics with learning objectives that support the main objectives of the course.

### 2.2.3 Target group

The target group of the course is personnel who require basic competence in handling acute pollution.

### 2.2.4 Previous knowledge requirement

No previous knowledge is required in order to take part in the course.

### 2.2.5 Assessment

Participants will receive guidance from lecturers and instructors during the course. It is assumed that the course participants attend the whole course and participate actively in the lectures and exercises. On completion of the course, participants will receive a course certificate. Competence is maintained through participation in exercises or during operations.

### 2.2.6 Sub-topics and number of hours

The course comprises 16 x 45 minute sessions and is usually held over two days. The course is composed of sub-topics that together cover the course's learning objectives. The distribution of subjects and hours defines an appropriate academic progression for the course and therefore the sub-topics should be taken in the set order. The total time allocated for assignments and exercises may be split up and included where this is most suitable for the academic progress.

The table below gives the recommended distribution of number hours of tuition for the various subtopics. The distribution must be adjusted to the course participants' previous knowledge and the context of the course. The most important thing is that the course's learning objectives are achieved.

Training programme for handling acute pollution

Sub-topic	Basic course in handling acute pollution	Hours of tuition
F01.1	Information and start-up	0.5

F02.1	Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution	1
F02.2	Requirements regarding preparedness against and handling acute pollution	
F03.2	Coordination and management of operations	1
F03.3	Exchange of best practice from relevant operations	
F04.8	Basic facts about properties and environmental impact of pollutants	1
F08.2	Health and safety measures	1
	Below, choose either F06.4, F06.5 or F06.6, depending on the course participants and their priority areas: sea, coast and shoreline or land.	
F06.4	Equipment for handling acute pollution – sea	1
F06.5	Equipment for handling acute pollution – coast and shoreline	
F06.6	Equipment for handling acute pollution – land	
F09.4	Tactical and operational organisation and management: Assignments and execution	2
F09.5	Tactical and operational organisation and management Administration and supply service	
F05.4	Communication plan and lines of communication	0.5
F06.7	Practical material know-how (part of exercise, cf. F10.1)	7
F10.1	Tasks and exercises (see description under 2.2.8)	
F01.2	Conclusion and evaluation	1
	<b>TOTAL</b>	<b>16</b>

### 2.2.7 Learning objectives and main elements

Satisfactory handling of acute pollution requires that those involved have the know-how, skills and attitudes in order to fill their intended role. Therefore, the learning objectives include knowledge, skills and attitude objectives.

The learning objectives will guide the training, but emphasis on the sub-topics may vary both as regards time spent and degree of specialisation. This will depend on the previous knowledge of the course delegates and the context of the course.

The lists of main elements show the elements that it would be natural to include in the training in order to achieve the learning objectives for the sub-topic. The order of the main elements does not need to be followed slavishly. It will also be necessary to adapt the various main elements to the course participants' previous knowledge. In some cases, certain main elements may be irrelevant.

The course organisers and the participants' experiences from previous events and operations will be importance resources in the training. The possibility to exchange best practice should be used during the entire course.

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<b>Basic course in handling acute pollution</b>		
<b>Sub-topic</b>	<b>Learning objectives: The participants shall</b>	<b>Main elements of the course:</b>
<b>F01.1 Information and start-up</b>	<ul style="list-style-type: none"> <li>- be motivated to acquire the skills they are expected to acquire during the course</li> <li>- be motivated to create a good learning environment</li> </ul>	<ul style="list-style-type: none"> <li>- purpose of the course</li> <li>- review of the course content</li> <li>- requirements for passing the course</li> <li>- clarification of expectations</li> <li>- information regarding practical and administrative matters during the course - presentation of instructors and participants</li> </ul>
<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course</b>
<b>F02.1 Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the responsibilities and authority in the national preparedness against acute pollution</li> <li>- have knowledge and an understanding of organisation of operations against acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- definition of acute pollution</li> <li>- why we act against acute pollution</li> <li>- responsibilities, authority and duties in the emergency response systems at private, municipal, inter-municipal and government level</li> <li>- the relationship between current requirements for preparedness against acute pollution and practising one's own role in the preparedness against acute pollution - notification regulations and instructions - partners who can perform tasks in preparedness and operations against acute pollution</li> <li>- current agreement in preparedness against acute pollution at private, municipal, inter-municipal and government level</li> <li>- the operations organisation</li> <li>- ethical challenges associated with the subject area</li> <li>- awareness of your own role and on whose behalf you are acting</li> </ul>
<b>F02.2 Requirement regarding emergency response and handling acute pollution</b>	<ul style="list-style-type: none"> <li>- familiar with various requirements regarding preparedness against and handling of acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- requirement regarding notification of acute pollution</li> <li>- relevant paragraphs of the Pollution Control Act with associated regulations</li> <li>- requirements for enterprises that have a duty to have an emergency response system</li> <li>- relevant paragraphs in the Fire and Explosion Prevention Act with associated regulations</li> <li>- others laws and regulations that regulate the area</li> </ul>

Sub-topic	Learning objectives: On completion of the course, the participant shall	Main elements of the course:
<b>F03.2</b> <b>Coordination and management of operations</b>	- have knowledge and an understanding of how coordination and management between the various management levels and functions in the operations organisation takes place	<ul style="list-style-type: none"> <li>- structure of the operations organisation</li> <li>- responsibilities and authority in the operations organisation</li> <li>- lines of communication, order lines and reporting between the various management levels</li> <li>Operations management, on-scene commanders, regional management, team management</li> <li>- lines of communication and reporting between the various functions in the operations organisation</li> <li>- status and staff meetings, situation reports - liaison's responsibilities, authority and duties</li> <li>- external adviser's responsibilities, authority and tasks</li> <li>- relevant specialist environments that can provide advice</li> <li>- organisation and management during private operations</li> <li>- statements to the media</li> </ul>
<b>F03.3</b> <b>Exchange of best practice from relevant operations</b>	- know how provisions operations against acute pollution have been conducted	<ul style="list-style-type: none"> <li>- review of previous operations relevant to the contents and objectives of the course</li> <li>- legal, organisational, financial and ethical aspects of previous operations</li> </ul>
<b>F04.8</b> <b>Basic information about the properties and environmental impact of the pollutants</b>	- have knowledge of properties and environmental impact of relevant pollutants (oils and other chemicals)	<ul style="list-style-type: none"> <li>- chemical and physical properties of relevant pollutants</li> <li>- break down of various oils on sea and land</li> <li>- chemical and physical properties of chemicals (liquid, gas and solid form)</li> <li>- HSE product safety data sheets</li> </ul>
<b>F08.2</b> <b>Health and safety measures</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of assessment of the health risks when handling acute pollution</li> <li>- have knowledge and an understanding of use of personal protective equipment when handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- guidelines for incorporating health and safety in orders and plans</li> <li>- HSE folder for use during oil spill response operations</li> <li>- HSE product safety data sheets</li> <li>- health risks</li> <li>- safety risks</li> <li>- gas detection equipment</li> <li>- personal protection equipment and clothing</li> <li>- communication plan as a safety factor</li> <li>- action in case of acute accident</li> <li>- reporting routines</li> <li>- attitudes and behaviour</li> </ul>

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**Below, choose either F06.4, F06.5 or F06.6, depending on the course participants and their priority areas: sea, coast and shoreline or land.**

Sub-topic	Learning objectives: On completion of the course, the participants shall	Main elements of the course:
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<b>F06.4</b> <b>Equipment for handling acute pollution - sea</b>	<ul style="list-style-type: none"> <li>- have knowledge about relevant resources for handling acute pollution on the sea - have an understanding of the importance of materials management</li> <li>- have an understanding of the importance of assessing the possible consequences of use of the equipment for health, safety and environment</li> </ul>	<ul style="list-style-type: none"> <li>- resources available in Norway</li> <li>- government resources</li> <li>- private resources (e.g. from NOFO) - the equipment's capacity, possibilities and limitations</li> <li>- challenges associated with procurement and location of the equipment</li> <li>- assessment of use of the equipment in different situations</li> <li>- risk aspects</li> </ul>
<b>F06.5</b> <b>Equipment for handling acute pollution – coast and shoreline</b>	<ul style="list-style-type: none"> <li>- have knowledge of relevant resources for handling acute pollution on the coast and shoreline</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of the importance of assessing the possible consequences of use of the equipment for health, safety and environment</li> </ul>	<ul style="list-style-type: none"> <li>- municipal and inter-municipal resources available</li> <li>- possible government resources</li> <li>- private resources</li> <li>- the equipment's capacity, possibilities and limitations</li> <li>- challenges associated with procurement and location of the equipment</li> <li>- assessment of use of the equipment in different situations</li> <li>- risk aspects</li> </ul>
<b>F06.6</b> <b>Equipment for handling acute pollution - land</b>	<ul style="list-style-type: none"> <li>- have a knowledge of relevant resources for handling acute pollution on land</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of the importance of assessing the possible consequences use of the equipment will have for health, safety and environment</li> </ul>	<ul style="list-style-type: none"> <li>- private resources available</li> <li>- municipal and inter-municipal resources available</li> <li>- possible government resources</li> <li>- the equipment's capacity, possibilities and limitations</li> <li>- challenges associated with procurement and location of the equipment</li> <li>- assessment of use of the equipment in different situations</li> <li>- risk aspects</li> </ul>
<b>F09.4</b> <b>Tactical and operational organisation and management: Assignment and execution</b>	<ul style="list-style-type: none"> <li>- have knowledge of and be able to use material and resources available based on the current situation assessment</li> </ul>	<ul style="list-style-type: none"> <li>- assessment of the capacity of the resources available</li> <li>- use and organisation of human resources based on expertise</li> <li>- identification and implementation of required HSE training</li> <li>- coordination with other units and functions</li> <li>- sources of information, monitoring methods - different methods of preventing the spread of the pollution, and also the measures required to avoid secondary contamination</li> <li>- technique and tactics when using relevant equipment</li> <li>- different methods of recovering oil and contaminated masses depending on the operation phase and polluted area</li> <li>- different cleaning and / or decontamination methods, depending on the operation phase and polluted area</li> </ul>

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Sub-topic	Learning objectives: On completion of the course, the participants shall	Main elements of the course:
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<b>F09.5</b> <b>Tactical and operational organisation and management:</b> <b>Administration and supply service</b>	<ul style="list-style-type: none"> <li>- have a knowledge and an understanding of the importance of keeping a list of the resources available</li> <li>- have a knowledge and an understanding of source separation and facilitating optimum waste management</li> </ul>	<ul style="list-style-type: none"> <li>- planning, reconnaissance and location of the advance depot</li> <li>- administration and management</li> <li>- facilities (personnel and material) - material transport and replenishment, flow of goods</li> <li>- receipt of personnel and issue of equipment</li> <li>- mapping expertise</li> <li>- give briefing on the situation, assignments, HSE</li> <li>- quartering and catering</li> <li>- overview and distribution of resources - communicate resource requirements to operation management</li> <li>- clarification of financial authority and authorisations - financial follow-up</li> <li>- accounting and documentation - waste management, including source separation</li> </ul>
<b>F05.4</b> <b>Communication plan and lines of communication</b>	<ul style="list-style-type: none"> <li>- be able to understand and use a communication plan</li> </ul>	<ul style="list-style-type: none"> <li>- communication equipment, possibilities and limitations</li> <li>- rules and procedures for use of communication equipment</li> <li>- communication and reporting routines</li> </ul>
<b>F06.7 Practical knowledge of materials</b>	<ul style="list-style-type: none"> <li>- be able to use relevant equipment for handling acute pollution</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of assessing the possible consequences use of the equipment will have for health, safety and environment</li> </ul>	<ul style="list-style-type: none"> <li>- the function and technical operation of the equipment</li> <li>- the equipment's capacities, possibilities and limitations</li> <li>- practical review of relevant equipment – experience in using equipment from previous operations</li> <li>- the consequences of incorrect use of materials</li> <li>- risk factors</li> <li>- HSE, job safety analysis (JSA) and personal protective equipment</li> </ul>
<b>F10.1</b> <b>Tasks and exercises</b>	<ul style="list-style-type: none"> <li>- be able to use acquired theoretical knowledge in practical tasks and exercises</li> </ul>	<ul style="list-style-type: none"> <li>- see the description under 2.2.8.</li> </ul>
<b>F01.2</b> <b>Conclusion and evaluation</b>	<ul style="list-style-type: none"> <li>- assess what you have learnt and evaluate the course</li> </ul>	<ul style="list-style-type: none"> <li>- assess what you have learnt, if necessary using a separate form</li> <li>- final evaluation of the course as regards goals and expectations, if necessary using a separate</li> <li>- award of course certificate</li> </ul>

## 2.2.8 Assignments and exercises

Assignments and exercises will focus on what is most relevant to the course participants and the context of the course.

The object of training response personnel is that through assignments and exercises the participants will acquire the basic knowledge and skills in using various types of equipment. On completion of the course, the participants shall

- have basic skills in use of communication equipment
- be able to perform operations using different types of equipment according to given orders



## **2.3 Basic course in chemical safety**

For courses in chemical safety, refer to the following courses at the Norwegian Fire Protection

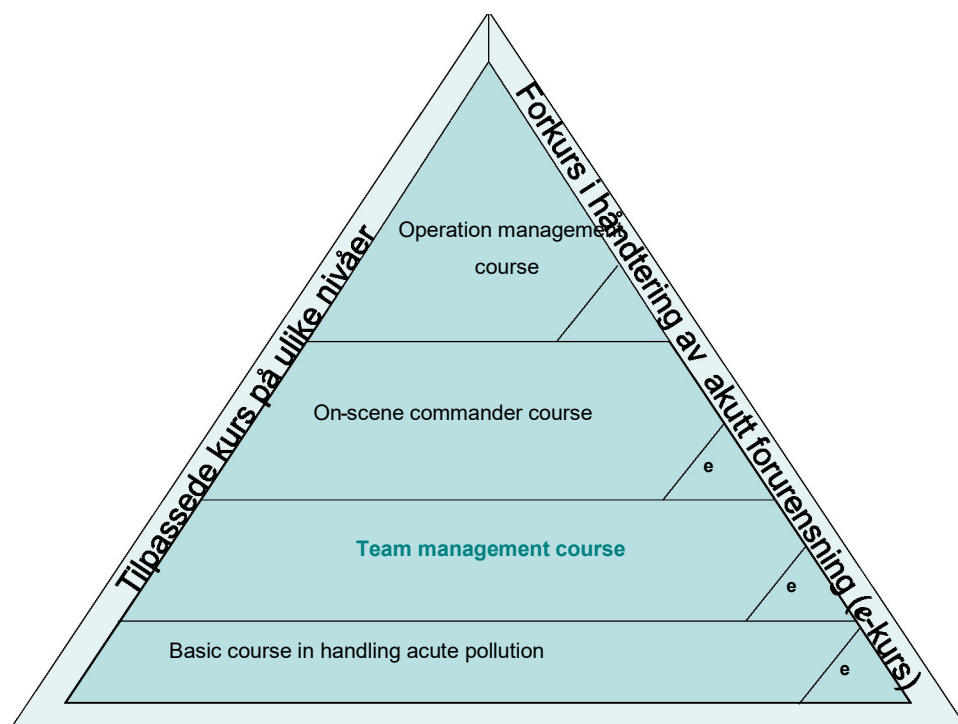
Training Institute for training fire crews:

- two-year fire officer course
- full-time basis course for fire officers
- part-time basic course for fire officers
- Preparedness training Step 1
- Basic course in chemical safety

## 2.4 Team management - coast and shoreline course

In order for the training to qualify for the relevant roles in handling acute pollution, as described in the Pollution Control Act, enterprises that offer the course must ensure that the training takes place in accordance with the current programme. The programme must be available on NCA's website at all times.

Relevant institutions must have satisfactory facilities and equipment in order to be able to hold the course in accordance with the programme objectives. During training and exercises, the safety of the course participants must be ensured in accordance with the current regulations.



### 2.4.1 The position of the course in the training structure

#### • 2.4.2 Main objectives

The objective of the course is to qualify the participants to be capable of filling the role as team leader during oil spill response operations on the coast and shoreline. On completion of the course, participants shall be able to organise and lead own personnel be able to manage tactical use of allocated resources

### **2.4.3 Target group**

The target group for the course is personnel who have or are intended a role as team leader during oil spill response operations on the coast and shoreline.

### **2.4.4 Previous knowledge requirements**

Course participants must have completed a basic course in handling acute pollution or have similar expertise.

### **2.4.5 Assessment**

Participants will receive guidance from lecturers and instructors during the course. It is assumed that the participants attend the whole course and take active part in the tuition and exercises. On completion of the course, participants will receive a course certificate. Skills will be maintained through participation in exercises or during operations.

### **2.4.6 Sub-topics and number of hours**

The course covers 28 x 45 minute sessions and usually extends over four days. The course consists of sub-topics that together will cover the learning objectives of the course. The distribution of subjects and hours defines an appropriate academic progression for the course and therefore, the sub-topics should be taken in the set order. The total time allocated to assignments and exercises may be split up and incorporated where this is most appropriate for the academic progression.

The table below shows the recommended distribution of hours for the various sub-topics. The distribution must be adjusted to the course participants' previous knowledge and the context of the course in order to achieve the learning objectives of the course.

Sub-topic	Course in team management during coast and shoreline oil spill response operations	No. of hours tuition
F01.1	Information and start-up	1
F02.1	Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution	1
F02.2	Requirements for preparedness against and handling acute pollution	
F02.4	Emergency response plans	
F03.2	Coordination and management of operations	1
F03.3	Exchange of best practice from relevant operations	
F04.8	Basic information regarding the properties and environmental impact of pollutants	1
F06.5	Equipment for handling acute pollution – coast and shoreline	1
F08.2	Health and safety measures	1
F09.2	Team leader's role and duties in the organisation	4
F09.3	Tactical and operational organisation and management: Situation assessment	5
F09.4	Tactical and operational organisation and management: Assignments and execution	
F09.5	Tactical and operational organisation and management: Administration and supply service	
F09.6	Tactical and operational organisation and management: Communication and management	
F06.7	Practical material know-how	13
F10.1	Assignments and exercises (see description under 2.4.8)	
F01.2	Conclusion and evaluation	1
	<b>TOTAL</b>	<b>29</b>

### 2.4.7 Learning objectives and main elements

Satisfactory handling of acute pollution requires that the parties involved have know-how, skills and attitudes which enable them to fill their intended role. Therefore, the learning objectives include knowledge, skill and attitude objectives.

The learning objectives will guide the training, but emphasis on the various sub-topics may vary both as regards time spent and degree of specialisation. This will depend on the course participants' previous knowledge and the context of the course.

The list of main elements indicates the elements it would be natural to include in the training in order to achieve the sub-topic learning objectives. The order in which the main elements have been set up does not need to be followed slavishly. It will also be necessary to adjust the various main elements to the course participants' previous knowledge. In some cases certain main elements may be irrelevant.

Both the course organiser and the participants' experiences from previous events and operations will be important resources in the training. The possibility for exchange of best practice should be used during the whole course.

<b>Team management course for coast and shoreline operations</b>		
<b>Sub-topic</b>	<b>Learning objectives: The participants shall</b>	<b>Main elements of the course:</b>
<b>F01.1 Information and start-up</b>	<ul style="list-style-type: none"> <li>- be motivated to acquire the skills they are expected to acquire during the course</li> <li>- be motivated to create a good learning environment</li> </ul>	<ul style="list-style-type: none"> <li>- the purpose of the course</li> <li>- review of the course contents</li> <li>- requirements for passing the course</li> <li>- clarification of expectations</li> <li>- information regarding practical and administrative matters during the course - presentation of instructors and course participants</li> </ul>
<b>Sub-topic</b>	<b>Learning objectives: On completion of the course the course participants shall</b>	<b>Main elements of the course:</b>
<b>F02.1 Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of responsibilities and authority in the national preparedness against acute pollution</li> <li>- have knowledge and an understanding of organisation of operations against acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- definition of acute pollution</li> <li>- why we take action against acute pollution - responsibilities, authority and tasks in the preparedness at private, municipal, intermunicipal and government level</li> <li>- relationship between relevant requirements for preparedness against acute pollution and practising your own role in this</li> <li>- notification regulations and instructions</li> <li>- partners who can perform tasks in preparedness and operations against acute pollution</li> <li>- relevant agreements within preparedness against acute pollution at private, municipal, inter-municipal and government level</li> <li>- the operations organisation</li> <li>- ethical challenges associated with the subject area</li> <li>- awareness of your own role and on whose behalf you are acting</li> </ul>
<b>F02.2 Requirement regarding preparedness against and handling acute pollution</b>	<ul style="list-style-type: none"> <li>- be familiar with the various requirements regarding preparedness against and handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- requirement to notification of acute pollution</li> <li>- relevant paragraphs in the Pollution Control Act with associated regulations</li> <li>- requirements for enterprises that have a duty to have an emergency response system - relevant paragraphs in the Fire and Explosion Prevention Act with associated regulations - other laws and regulations that regulate the field</li> </ul>
<b>F02.4 Emergency response plans</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the importance of Emergency response plans</li> <li>- be able to use the Emergency response plan in practice</li> </ul>	<ul style="list-style-type: none"> <li>- need for an Emergency response plan</li> <li>- structure of an Emergency response plan - the importance of an updated and known plans in the organization - knowledge of the use of Emergency response plans – the importance of learning to use the Emergency response plan</li> </ul>

Sub-topic	Learning objectives: On completion of the course the participants shall	Main elements of the course:
<b>F03.2</b> <b>Coordination and management of operations</b>	- have knowledge and an understanding of how coordination and management between the various management levels and functions in the operations organisation takes place	<ul style="list-style-type: none"> <li>- structure of the operations organisation</li> <li>- responsibilities and authority in the operations organisation</li> <li>- lines of communication, order lines and reporting between the various management levels: Operations management, on-scene commanders, regional management, team and group management</li> <li>- lines of communication and reporting between the various functions in the operations organisation</li> <li>- status and staff meetings, situation reports</li> <li>- liaison's responsibilities, authority and tasks</li> <li>- external advisers' responsibilities, authority and tasks</li> <li>- relevant specialist environments that can provide advice</li> <li>- organisation and management in private operations</li> <li>- statements to the media</li> </ul>
<b>F03.3</b> <b>Exchange of best practice from relevant operations</b>	- knowledge of how previous operations against acute pollution have been conducted	- review of previous operations relevant to the content and objectives of the course - legal, organisational, financial and ethical aspects of previous operations
<b>F04.8</b> <b>Basic knowledge of pollutants' properties and environmental impact</b>	- have knowledge of the properties and environmental impact of relevant pollutants (oils and other chemicals)	<ul style="list-style-type: none"> <li>- chemical and physical properties of relevant pollutants</li> <li>- break down of various oils on the sea and land</li> <li>- chemical and physical properties of chemicals (liquid, gas and solid form)</li> </ul>
<b>F04.11</b> <b>Shoreline cleaning</b>	- be able to prepare a plan for the shoreline cleaning phase	<ul style="list-style-type: none"> <li>-- HMSregistr-databladeration methods</li> <li>- different types of beaches</li> <li>- different methods of cleaning as regards effectiveness and environmental damage</li> <li>- different phases of the cleaning operation</li> <li>- consideration for logistics, waste management and secondary contamination</li> <li>- criteria for adequate cleaning</li> <li>- tasks and responsibilities of the on-scene commander during the cleaning phase</li> <li>- relevant advisers and authorities - HSE</li> </ul>
<b>F04.15</b> <b>Use of dispersants and shoreline cleaning agents</b>	- have knowledge of use of dispersants and shoreline cleaning agents	<ul style="list-style-type: none"> <li>- relevant regulations</li> <li>- relevant authorities</li> <li>- possibilities and limitations</li> <li>- methods for use of dispersants and shoreline cleaning agents</li> <li>- procedures for optimum use of specific agents</li> <li>- control and decision-making form for dispersants</li> <li>- relevant equipment</li> <li>- product safety data sheets</li> </ul>

<b>Sub-topic</b>	<b>Learning objectives: On completion of the course the participants shall</b>	<b>Main elements of the course:</b>
<b>F06.5 Equipment for handling acute pollution – coast and shoreline</b>	<ul style="list-style-type: none"> <li>- have knowledge of relevant resources for handling acute pollution on the coast and shoreline</li> <li>- have an understanding of the importance of materials management</li> <li>- have an understanding of the importance of assessing the possible consequences for health, safety and the environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- municipal and inter-municipal resources available</li> <li>- possible government-supplied resources - private resources</li> <li>- the equipment's capacities, possibilities and limitations</li> <li>- challenges associated with procurement and positioning of equipment</li> <li>- assessment of use of the equipment in different situations</li> <li>- risk factors</li> </ul>
<b>F06.7 Practical material knowledge</b>	<ul style="list-style-type: none"> <li>- be able to use the relevant equipment for handling acute pollution</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of the importance of considering possible consequences for health, safety and environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- the equipment's function and technical operation</li> <li>- the equipment's capacities, possibilities and limitations</li> <li>- practical review of the relevant equipment</li> <li>- experience with use of equipment from previous operations</li> <li>- consequences of incorrect use of material - risk factors</li> <li>- HSE, job safety analysis (JSA) and personal protective equipment</li> </ul>
<b>F08.2 Health and safety measures</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of assessment of the health risks when handling acute pollution</li> <li>- have knowledge and an understanding of use of personal protective equipment when handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- guidelines for incorporating health and safety in orders and plans</li> <li>- HSE folder for use during oil spill response operations</li> <li>- product safety data sheets</li> <li>- health risks</li> <li>- safety measures</li> <li>- gas detection equipment</li> <li>- personal protective equipment and safety clothing</li> <li>- communication plan as a safety factor</li> <li>- measures in case of acute accidents</li> <li>- reporting routines</li> <li>- attitudes and behaviour</li> </ul>
<b>F09.2 Team leader's role and duties in the organisation</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the team leader's role and duties</li> <li>- have basic skills in motivating and leading assigned personnel</li> </ul>	<ul style="list-style-type: none"> <li>- responsibilities, authority and duties</li> <li>- motivation and leadership</li> <li>- inspection work</li> <li>- obtaining information</li> <li>- follow-up of ongoing work</li> <li>- work and situation reports</li> <li>- HSE plan for own work area</li> </ul>

Sub-topic	Learning objectives: On completion of the course, the participants shall	Main elements of the course:
<b>F09.3</b> <b>Tactical and operational organisation and management: Situation assessment</b>	- acute pollution - be able to assess the various factors that affect the possibility to solve the assignment - have an understanding of the importance of assessing health, safety and environment risks associated with solution of the assignment	Page 24 of 73 - interpretation of the given assignment - importance of systematic HSE work - risk assessment - job safety analysis (JSA) - access to the scene - location of the On-scene Commander's command centre - communication possibilities - type and properties of the pollution - source of the pollution - mapping the extent of the pollution - sampling - limitation of the pollution from the source - assessment of measures and methods associated with vulnerable and prioritised areas - meteorology and oceanography - use of and drafting inspection reports - drafting orders - communication of orders to subordinate units
<b>F09.4</b> <b>Tactical and operational organisation and management: Assignment and execution</b>	- have knowledge of and be able to use material and resources available based on the current situation assessment	- assessment of the capacity of available resources - use and organisation of human resources based on skills - mapping and implementation of necessary HSE training - coordination with other units and functions - sources of information, monitoring methods - different methods of preventing the spread of the pollution and also measures that are necessary in order to avoid secondary contamination - techniques and tactics when using relevant equipment - different methods of recovering oil and contaminated masses depending on the operation phase and polluted area - different cleaning and / or decontamination techniques depending on the operation phase and polluted area
<b>F09.5</b> <b>Tactical and operational organisation and management: Administration and supply service</b>	- have knowledge and an understanding of the importance of keeping a list of resources available - have knowledge and an understanding of the importance of source separation and facilitating optimum waste management	- planning, reconnaissance and location of the advance depot - administration and management facilities (personnel and materials) - material conveyance and replenishment, flow of goods - receipt of personnel and delivery of equipment - mapping expertise - briefing on the situation, assignment, HSE - quartering and catering - overview and distribution of resources - communicate resource requirements to the operations management - clarification of financial authority - financial follow-up



		- accounting and documentation - waste management, including source separation, intermediate storage and transport
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mellomlagring og transport

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Version 01

Training programme for handling acute pollution

<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F09.6 Tactical and operational organisation and management: Communication and leadership</b>	- have knowledge and an understanding of the importance of presence, common situation picture and communication	- relevant communication equipment - preparation of communication plan - documentation and logging - structure of own situation picture - contribute to common situation picture - reporting - use of decision-making support tools
<b>F10.1 Assignments and exercises</b>	- be able to use suitable theoretical expertise in practical assignments and exercises	- see the description in 2.4.8
<b>F01.2 Conclusion and evaluation</b>	- assess what you have learnt and evaluate the course	- assessment of what you have learnt, or using a separate form - final evaluation of the course in relation to goals and expectations, or using a separate form - award of course certificate

### 2.4.8 Assignments and exercises

Assignments and exercises will focus on what is most relevant to the course participants and the context of the course.

On completion of the course, participants shall

- have good skills in use of communication equipment
- have basic skills in use of relevant equipment for handling acute pollution
- have basic skills in order to be able to fill the role of team leader
- be able to solve relevant tasks using basic skills they have acquired during the course

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## **2.5 On-Scene Commander Land (OSC Land) course**

For the On-Scene Commander Land course, refer to the Norwegian Fire Protection Training

Institute's fire crew training through the following courses:

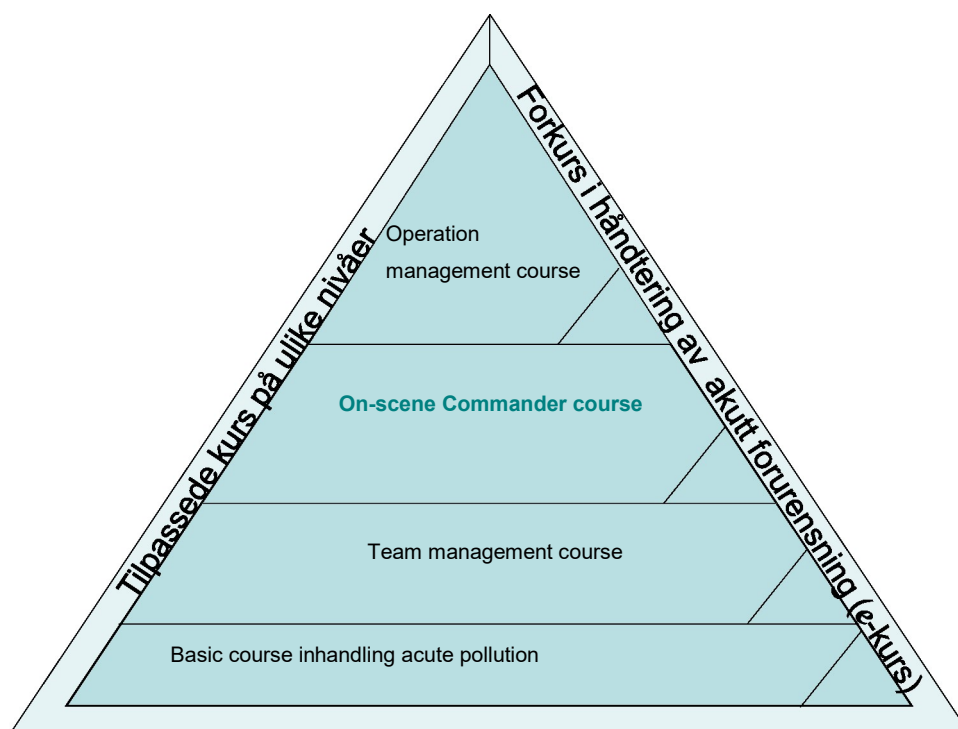
- Emergency preparedness training step 2
- Emergency preparedness training step 3
- On-Scene Commander Land (OSC Land) Course
- Management course in chemical protection

## 2.6 On-Scene Commander Coast and Shoreline (OSC Coast and Shoreline) Course

In order for the training to qualify for relevant roles in handling acute pollution, as described in the Pollution Control Act, enterprises that offer courses must ensure that the training is organized in accordance with the applicable training programme. The training programme must be available on NCA's website at all times.

Relevant course institutions must have satisfactory facilities and equipment in order to be able to hold the course in accordance with the objectives in the training programme. The safety of the course participants must be ensured during training and exercises in accordance with the applicable regulations.

### 2.6.1 Position of the course in the training structure



### 2.6.2 Main objectives

- The objective of the course is to qualify the participants in order to be able to fill the role of onscene commander during operations against acute pollution on the coast and shoreline. On completion of the course, participants shall
  - be able to organise and lead personnel on the scene
  - be able to make tactical allocation and use of resources at the scene
  - be able to help achieve the operation's environmental objectives

### 2.6.3 Target group

The target group for the course is personnel who have or are intended a role as on-scene commander during operations against acute pollution on the coast and shoreline.

### 2.6.4 Previous knowledge requirements

Course participants must have completed a team leader course for coast and shoreline or have equivalent expertise.

### 2.6.5 Assessment

Participants receive guidance from lecturers and instructors during the course. It is assumed that participants attend the entire course and take active part in the training and exercises. On completion of the course, participants will receive a course certificate. Competence is maintained through participation in exercises or during operations.

### 2.6.6 Sub-topics and number of hours

The course comprises 28 x 45 minute sessions and is usually held over 4 days. The course is composed of sub-topics that together cover the course's learning objectives. The distribution of subjects and hours defines an appropriate academic progression for the course and the sub-topics should therefore be taken in the set order. The total time allocated to assignments and exercises may be split and included where this is most appropriate for the academic progression.

The table below gives the recommended distribution of hours of tuition for the various sub-topics. The distribution of hours must be adapted to the course participants' previous knowledge and the context of the course. It is important that the course's learning objectives are met.

Training programme for handling acute pollution

Sub-topic	On-Scene Commander Coast and Shoreline (OSC Coast and Shoreline) Course	Hours of tuition
F01.1	Information and start-up	1
F02.1	Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution	1
F02.2	Requirements for preparedness against and handling acute pollution	
F02.4	Emergency response plans	
F03.2	Coordination and management of operations	
F03.3	Exchange of best practice from relevant operations	1
F04.8	Basic knowledge about the properties and environmental impact of pollutants	1
F04.11	Beach cleaning	
F04.15	Use of dispersants and shoreline cleaning agents	3
F06.5	Equipment for handling acute pollution – coast and shoreline	
F08.2	Health and safety measures	1
F09.1	The roles and duties of the OSC in the organization	3

<b>F09.3</b>	<b>Tactical and operational organisation and management: Situation assessment</b>	<b>5</b>
<b>F09.4</b>	<b>Tactical and operational organisation and management: Assignments and execution</b>	
<b>F09.5</b>	<b>Tactical and operational organisation and management: Administration and supply service</b>	
<b>F09.6</b>	<b>Tactical and operational organisation and management: Communication and management</b>	
<b>F04.4</b>	<b>Decision-making support tools</b>	<b>1</b>
<b>F07.3</b>	<b>Media handling</b>	<b>1</b>
<b>F10.1</b>	<b>Assignments and exercises (see description in 2.6.8)</b>	<b>9</b>
<b>F01.2</b>	<b>Conclusion and evaluation</b>	<b>1</b>
	<b>TOTAL</b>	<b>28</b>

### 2.6.7 Learning objectives and main elements

Satisfactory handling of acute pollution requires that the involved parties have the knowledge, skills and attitudes that enable them to fill their intended role. Therefore, the learning objectives include knowledge, skills and attitude objectives.

The learning objectives will guide the training, but emphasis on the sub-topics could vary both as regards time spent and degree of specialisation. This will depend on the course participants' previous knowledge and the course context.

The lists of main elements state what it would be natural to include in the course in order to achieve the learning objectives for the sub-topic. The order in which the main elements have been set up does not need to be followed slavishly. It will also be necessary to adjust the various main elements to the previous knowledge of the course participants. In some cases, certain main elements may be irrelevant.

Both the course organiser and the participants' experiences from previous events and operations will be important resources in the training. The possibility for exchange of best practice should be used during the whole course.

<b>On-Scene Commander Coast and Shoreline (OSC Coast and Shoreline) course</b>		
<b>Sub-topic</b>	<b>Learning objectives The participants shall</b>	<b>Main elements of the course:</b>
<b>F01.1 Information and start-up</b>	<ul style="list-style-type: none"> <li>- be motivated to acquire the skills they are expected to acquire during the course</li> <li>- be motivated to create a good learning environment</li> </ul>	<ul style="list-style-type: none"> <li>- purpose of the course</li> <li>- review of the course content</li> <li>- requirements for passing the course</li> <li>- explanation of expectations</li> <li>- information on practical and administrative matters during the course</li> <li>- presentation of instructors and course participants</li> </ul>
<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F02.1 Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of responsibilities and authority in the national preparedness against acute pollution</li> <li>- have knowledge and an understanding of organisation of operations against acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- definition of acute pollution</li> <li>- why we want to take action against acute pollution</li> <li>- responsibilities, authority and tasks in the emergency preparedness at private, municipal, inter-municipal and government level</li> <li>- relationship between current requirements for preparedness against acute pollution and practising your own role in preparedness against acute pollution</li> <li>- notification regulations and instructions</li> <li>- partners who can perform the tasks within preparedness and operations against acute pollution</li> <li>- relevant agreements in preparedness against acute pollution at private, municipal, inter-municipal and government level</li> <li>- the operations organisation</li> <li>- ethical challenges associated with the subject area</li> <li>- awareness of your own role and on whose behalf you are acting</li> </ul>
<b>F02.2 Requirements for preparedness against and handling acute pollution</b>	<ul style="list-style-type: none"> <li>- knowledge of various requirements for preparedness against and handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- requirements for notification of acute pollution</li> <li>- relevant paragraphs in the Pollution Control Act with associated regulations</li> <li>- requirements for enterprises that have a duty to have an emergency response system</li> <li>- relevant paragraphs in the Fire and Explosion Prevention Act with associated regulations</li> <li>- other laws and regulations that regulate the area</li> </ul>

<b>F02.4 Emergency response plans</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the importance of Emergency response plans - be able to use the Emergency response plan in practice</li> </ul>	<ul style="list-style-type: none"> <li>- need for an Emergency response plan</li> <li>- structure of an Emergency response plan</li> <li>- the importance of updated and known plans in the organisation - knowledge of the use of Emergency response plans</li> <li>- the importance of practising the use of an Emergency response plan</li> </ul>
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Training programme for handling acute pollution

Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
<b>F03.2 Coordination and management of operations</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of how coordination and management between the various management levels and functions in the operations organization is done</li> </ul>	<ul style="list-style-type: none"> <li>- structure of the operations organisation - responsibilities and authority in the operations organisation</li> <li>- lines of communication, order lines and reporting between the various management levels</li> <li>Operations management, on-scene command, regional management, team and group management</li> <li>- lines of communication and reporting between the various functions in the operations organisation</li> <li>- status and staff meetings, situation reports</li> <li>- liaison's responsibilities, authority and duties-</li> <li>- external advisers' responsibilities, authority and duties</li> <li>- relevant specialist environments who can provide advice and management in private operations</li> <li>- statements to the media</li> </ul>
<b>F03.3 Exchange of best practice from relevant operations</b>	<ul style="list-style-type: none"> <li>- know how previous operations against acute pollution have been conducted</li> </ul>	<ul style="list-style-type: none"> <li>- review previous operations relevant to the contents and objectives of the course - legal, organisational, financial and ethical aspects of previous operations</li> </ul>
<b>F04.8 Basic information about the properties and environmental impact of pollutants</b>	<ul style="list-style-type: none"> <li>- have knowledge of the properties and environmental impact of pollutants (oils and other chemicals)</li> </ul>	<ul style="list-style-type: none"> <li>- chemical and physical properties of relevant pollutants</li> <li>- break down of various oils in the sea and on land</li> <li>- chemical and physical properties of chemicals (liquid, gas and solid form)</li> <li>- product safety data sheets</li> </ul>

<b>F04.11 Shoreline cleaning</b>	- be able to prepare a plan for the shoreline cleaning phase	- registration method - different types of beach - different methods of cleaning as regards effectiveness and environmental impact - different phases of the cleaning operation - consideration for logistics, waste management and secondary pollution - criteria for adequate cleaning - duties and responsibilities of the on-scene commander during the cleaning phase - relevant advisers and authorities - HSE
<b>F04.15 Use of dispersant and shoreline cleaning agents</b>	- have knowledge of the use of dispersants and shoreline cleaning agents	- relevant regulations - relevant authorities - possibilities and limitations - methods for use of dispersants and shoreline cleaning agents - procedures for optimum use of specific agents - control and decision form for dispersants - relevant equipment - product safety data sheets

Training programme for handling acute pollution

<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, the participants shall</b>	<b>Main elements of the course:</b>
<b>F06.5 Equipment for handling acute pollution – coast and shoreline</b>	- have knowledge of relevant resources for handling acute pollution on the coast and shoreline - have an understanding of the importance of proper materials management - have an understanding of the importance of assessing the possible consequences for health, safety and environment when using the equipment	- municipal and inter-municipal resources available - possible government-supplied resources - private resources - the equipment's capacities, possibilities and limitations - challenges associated with procurement and location of the equipment - assessment of use of the equipment in various situations - risk factors
<b>F08.2 Health and safety measures</b>	- have knowledge and an understanding of assessment of the health risk when handling acute pollution - have knowledge and an understanding of use of personal protective equipment when handling acute pollution	- guidelines for addressing health and safety in orders and plans - HSE folder for use during oil spill response operations - product safety data sheets - health risk - safety measures - gas detection equipment - personal protective equipment and safety clothing - communication plan as safety factor - reporting routines
<b>F09.1 Role and duties of the On-Scene Commander in the organisation</b>	- have knowledge and an understanding of the role of the onscene commander	-- holdninger og atferdresponsibilities, authority and duties of the on-scene commander - role of the staff as support to the on-scene commander - coordination and communication between various on-scene commanders



<b>F09.3</b> <b>Tactical and operational organisation and management: Situation assessment</b>	- be able to assess the various factors that influence the possibility of solving the assignment - have an understanding of the importance of assessing the health, safety and environment risk associated with solving the assignment	- interpretation of a given assignment - the importance of systematic HSE work - risk assessment - Job Safety Analysis (JSA) - access to the scene - location of the OSC's command centre - communication possibilities - type and properties of the pollution - pollution source - identifying the extent of pollution - sampling - mitigating the pollution from the source - assessment of measures and methods associated with vulnerable and prioritised areas - meteorology and oceanography - use and development of inspection reports - drafting orders - communication of orders to subordinate units
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Training programme for handling acute pollution

Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
<b>F09.4</b> <b>Tactical and operational organisation and management: Assignment and execution</b>	- have knowledge of and be able to use material and resources available based on the current situation assessment	- assessment of the capacities of the available resources - use and organisation of human resources based on expertise - mapping and implementation of the required HSE training - coordination with other units and functions - sources of information, monitoring methods - various methods for preventing the spread of the pollution, and also measures required to prevent secondary contamination - technique and tactics when using relevant equipment - various methods of recovering oil and contaminated masses depending the operations phase and polluted area - different cleaning and / or decontamination methods depending on the operations phase and polluted area

<b>F09.5</b> <b>Tactical and operational organisation and management: Administration and supply service</b>	- have knowledge and an understanding of the importance of having an overview of the resources available - have knowledge and an understanding of the importance of source separation and facilitating optimum waste management	- planning, reconnaissance and location of advance depot - administration and management - facilities (personnel and material) - material conveyance and replenishment, flow of goods - receipt of personnel and delivery of equipment - identifying expertise - briefing on the situation, assignment, HSE - quartering and catering - resource list and distribution of resources - communicate resource requirements to the operations management - clarification of financial authority and authorisations - financial follow-up - accounting and documentation - waste management, including source separation, intermediate storage and transport
<b>F09.6</b> <b>Tactical and operational organisation and management: Communication and management</b>	- have knowledge and an understanding of the importance of being present, having a common situation picture and communication	- relevant communication equipment - development of communication plan - documentation and logging - structure of own situation picture - contribute to common situation picture - reporting - use of decision-making support tools
<b>F04.4</b> <b>Decision-making support tools</b>	- have knowledge of and be able to use relevant decision-making support tools	- maps - reference books - electronic databases - simulation tools
<b>F10.1</b> <b>Assignments and exercises</b>	- be able to use suitable theoretical expertise in practical assignments and exercises	- see the description under 2.6.8

Training programme for handling acute pollution

Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
<b>F01.2</b> <b>Conclusion and evaluation</b>	- assessment of what you have learnt and evaluation of the course	- assessment of what you have learnt, if necessary using a special form - final evaluation of the course as regards goals and expectations, if necessary using a special form - award of course certificate

## 2.6.8 Assignments and exercises

Assignments and exercises will focus on what is most relevant to the course participants and the context of the course.

On completion of the course, participants shall

- be able to map shoreline areas with a view to possible pollution
- be able to develop a plan for a shoreline operation

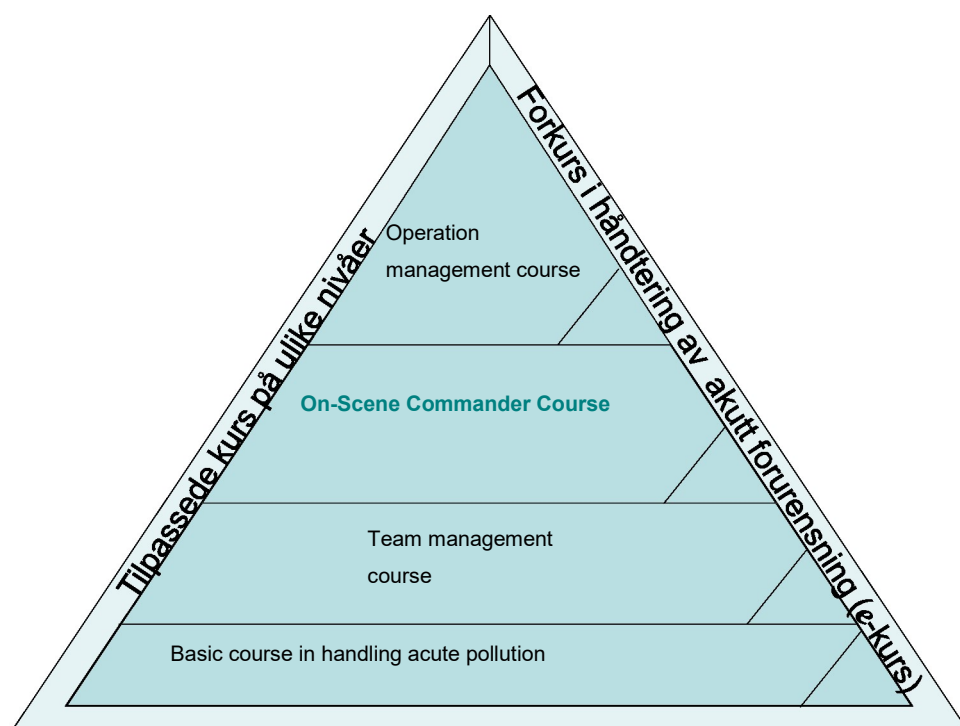
- be able to develop a plan for shoreline cleaning
- have basic skills in order to be able to fill the role of On-Scene Commander Coast and Shoreline

## 2.7 On-Scene Commander Sea Course (OSC Sea)

In order for the training to quality for the relevant roles in handling acute pollution, as described in the Pollution Control Act, enterprises that offer the course must ensure that the training is conducted in accordance with the applicable training programme. The training programme must be available on NCA's website at all times.

Relevant institutions must have satisfactory facilities and equipment in order to be able to arrange the course in accordance with the objectives in the training programme. During training and exercises, the safety of the course participants must be ensured in accordance with the applicable regulations.

### 2.7.1 Position of the course in the training structure



### 2.7.2 Main objectives

The aim of the course is to qualify the participants in order to be able to fill the role of On-Scene Commander during operations against acute pollution at sea. On completion of the course, participants shall

- Be able to organise and lead personnel on the scene
- Be able to carry out tactical allocation and use of resources on the scene

### 2.7.3 Target group

The target group for the course is personnel who have or are intended a role as On-Scene Commander during operations against acute pollution at sea.

### 2.7.4 Previous knowledge requirements

Course participants must have completed the basis course in handling acute pollution or have equivalent expertise.

### 2.7.5 Assessment

Participants receive guidance from lecturers and instructors during the course. It is assumed that participants attend the whole course and participate actively in the training and exercises. On completion of the course, participants will receive a course certificate. Expertise is maintained through participation in exercises or during operations.

### 2.7.6 Sub-topics and number of hours

The course comprises 26 x 45 minute sessions and is usually held over 4 days. The course is composed of sub-topics that together cover the course's learning objectives. The distribution of subjects and hours describes an appropriate academic progression for the course and the sub-topics should therefore be completed in the set order. The total time allocated to assignments and exercises may be split up and included where this is most appropriate for the academic progression.

The table below gives the recommended distribution of hours of tuition for the various sub-topics. The distribution must be adapted to the course participants' previous knowledge and the context of the course. It is important that the course's learning objectives are met.

Sub-topic	On-Scene Commander Sea (OSC Sea) Course	Hours of tuition
F01.1	Information and start-up	0.5
F02.1	Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution	1
F02.2	Requirements for preparedness against and handling acute pollution	
F02.4	Emergency response plans	
F03.2	Coordination and management of operations	1

<b>F03.3</b>	<b>Exchange of best practice from relevant operations</b>	
<b>F09.1</b>	<b>Role and duties of the On-Scene Commander in the organisation</b>	<b>2</b>
<b>F04.8</b>	<b>Basic information about the properties and environmental impact of pollutants</b>	<b>1</b>
<b>F04.4</b>	<b>Decision-making support tools</b>	<b>1</b>
<b>F04.13</b>	<b>Remote sensing, environmental monitoring and information</b>	<b>1</b>
<b>F04.14</b>	<b>Meteorology and oceanography</b>	<b>0.5</b>
<b>F04.15</b>	<b>Use of dispersants and shoreline cleaning agents</b>	<b>0.5</b>
<b>F06.4</b>	<b>Equipment for handling acute pollution at sea</b>	<b>3</b>
<b>F06.7</b>	<b>Practical material know-how</b>	
<b>F08.2</b>	<b>Health and safety measures</b>	<b>1</b>
<b>F09.3</b>	<b>Tactical and operational organisation and management: Situation assessment</b>	<b>1</b>
<b>F09.4</b>	<b>Tactical and operational organisation and management: Assignment and execution</b>	<b>1</b>
<b>F09.5</b>	<b>Tactical and operational organisation and management: Administration and supply service</b>	<b>1</b>
<b>F09.6</b>	<b>Tactical and operational organisation and management: Communication and management</b>	<b>1</b>
<b>F07.3</b>	<b>Media handling</b>	<b>1</b>
<b>F10.1</b>	<b>Assignments and exercises (see description under 2.7.8)</b>	<b>8</b>
<b>F01.2</b>	<b>Conclusion and evaluation</b>	<b>0.5</b>
	<b>TOTAL</b>	<b>26</b>

### 2.7.7 Learning objectives and main elements

Satisfactory handling of acute pollution requires that the involved parties have the knowledge, skills and attitudes that enable them to fill their intended role. Therefore, the learning objectives include knowledge, skills and attitude objectives.

The learning objectives will guide the training, but emphasis on the sub-topics could vary both as regards time spent and degree of specialisation. This will depend on the course participants' previous knowledge and the course context.

The lists of main elements state what it would be natural to include in the course in order to achieve the learning objectives for the sub-topic. The order in which the main elements have been set up does not need to be followed slavishly. It will also be necessary to adjust the various main elements to the previous knowledge of the course participants. In some cases, certain main elements may be irrelevant.

Both the course organiser and the participants' experiences from previous events and operations will be important resources in the training. The possibility for exchange of best practice should be used during the whole course.

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<b>On-Scene Commander Sea (OSC Sea) Course</b>		
<b>Sub-topic</b>	<b>Learning objectives: Participants shall</b>	<b>Main elements of the course:</b>
<b>F01.1 Information and start-up</b>	<ul style="list-style-type: none"> <li>- be motivated to acquire the expected expertise during the course</li> <li>- be motivated to create a good learning environment</li> </ul>	<ul style="list-style-type: none"> <li>- purpose of the course</li> <li>- review of course content</li> <li>- requirements for passing the course</li> <li>- clarification of expectations</li> <li>- information about practical and administrative matters during the course</li> <li>- presentation of instructors and participants</li> </ul>
<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F02.1 Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of responsibilities and authority in the national preparedness against acute pollution</li> <li>- have knowledge and an understanding of organisation of operations against acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- definition of acute pollution</li> <li>- why we take action against acute pollution - responsibilities, authority and duties in the preparedness at private, municipal, intermunicipal and government level</li> <li>- relationship between relevant requirements for the preparedness against acute pollution and practising one's own role in the preparedness against acute pollution - notification regulations and instructions - partners who can carry out tasks in preparedness and operations against acute pollution</li> <li>- relevant agreements in preparedness against acute pollution at private, municipal, inter-municipal and government level</li> <li>- the operations organisation</li> <li>- ethical challenges associated with the subject area</li> <li>- awareness of own role and on whose behalf you are acting</li> </ul>
<b>F02.2 Requirements for preparedness against and handling acute pollution</b>	<ul style="list-style-type: none"> <li>- know about the various requirements for preparedness against and handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- requirements for notifying acute pollution</li> <li>- relevant paragraphs in the Pollution Control Act with associated regulations</li> <li>- requirements for activities that have a duty to have an emergency response system</li> <li>- relevant paragraphs in the Fire and Explosion Protection Act with associated regulations</li> <li>- other laws and regulations that regulate the area</li> </ul>
<b>F02.4 Emergency response plans</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the importance of Emergency response plans - be able to use the Emergency response plans in practice</li> </ul>	<ul style="list-style-type: none"> <li>- need for an Emergency response plan</li> <li>- structure of an Emergency response plan - the importance of an updated and known set of plans in the organisation - know how to use Emergency response plans</li> <li>- the importance of practising use of an Emergency response plan</li> </ul>

Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
<b>F03.2</b> <b>Coordination and management of operations</b>	- have knowledge and an understanding of how coordination and management between the various management levels and functions in the organisation takes place	<ul style="list-style-type: none"> <li>- structure of the operations organisation</li> <li>- responsibilities and authority in the operations organisation</li> <li>- lines of communication, order lines and reporting between the various management levels</li> <li>Operations, regional and team management</li> <li>- lines of communication and reporting between the various functions in the operations organisation</li> <li>- status and staff meetings, situation reports</li> <li>- liaison's responsibilities, authority and duties</li> <li>- external advisers' responsibilities, authority and duties</li> <li>- relevant specialist environments that may provide advice</li> <li>- organisation and management in private operations</li> <li>- statements to the media</li> </ul>
<b>F03.3</b> <b>Exchange of best practice from relevant operations</b>	- know how previous operations against acute pollution have been conducted	<ul style="list-style-type: none"> <li>- review previous operations relevant to the contents and objectives of the course</li> <li>- legal, organizational, financial and ethical aspects of previous operations</li> </ul>
<b>F09.1</b> <b>The role and duties of the On-Scene Commander in the organization</b>	- have knowledge and an understanding of the role of OnScene Commander	<ul style="list-style-type: none"> <li>- responsibilities, authority and duties of the on-scene commander</li> <li>- the staff's role as support to the on-scene commander</li> <li>- coordination and communication between various on-scene commanders</li> </ul>
<b>F04.8</b> <b>Basic information about the properties and environmental impact of pollutants</b>	- have knowledge of the properties and environmental impact of the various pollutants (oils and other chemicals)	<ul style="list-style-type: none"> <li>- chemical and physical properties of relevant pollutants</li> <li>- break down of various oils on the sea and land</li> <li>- chemical and physical properties of chemicals (liquid, gas and solid form)</li> <li>- product safety data sheets</li> </ul>
<b>F04.4</b> <b>Decision-making support tools</b>	- have knowledge of and be able to use relevant decision-making support tools	<ul style="list-style-type: none"> <li>- maps</li> <li>- reference books</li> <li>- electronic databases</li> <li>- simulation tools</li> </ul>
<b>F04.13</b> <b>Remote sensing, environmental monitoring and information</b>	- have knowledge of existing methods to detect, monitor and map acute pollution	<ul style="list-style-type: none"> <li>- various remote sensing sensors</li> <li>- satellite surveillance</li> <li>- plane and helicopter surveillance</li> <li>- monitoring from vessels</li> <li>- monitoring from installation</li> <li>- common situation picture</li> <li>- basis for the real time picture of the distribution of vulnerable natural resources (sea birds and mammals, etc.)</li> </ul>



<p><b>F04.14 Meteorology and oceanography</b></p>	<ul style="list-style-type: none"> <li>- have a basic knowledge of general meteorology and oceanography</li> <li>- have knowledge of various sources of information about meteorology and oceanography</li> </ul>	<ul style="list-style-type: none"> <li>- atmosphere modelling</li> <li>- oceanography modelling</li> <li>- the methods' area of application and limitations</li> <li>- drift trajectory calculations</li> <li>- various weather services</li> </ul>
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<p><b>Sub-topic</b></p>	<p><b>Learning objectives: On completion of the course, participants shall</b></p>	<p><b>Main elements of the course:</b></p>
<p><b>F04.15 Use of dispersants and shoreline cleaning agents</b></p>	<ul style="list-style-type: none"> <li>- have knowledge of the use of dispersants and shoreline cleaning agents</li> </ul>	<ul style="list-style-type: none"> <li>- relevant regulations</li> <li>- relevant authorities</li> <li>- possibilities and limitations</li> <li>- methods for use of dispersants and shoreline cleaning agents</li> <li>- procedures for optimum use of specific agents</li> <li>- control and decision-making form for dispersants</li> <li>- relevant equipment</li> <li>- product safety data sheets</li> </ul>
<p><b>F06.4 Equipment for handling acute pollution at sea</b></p>	<ul style="list-style-type: none"> <li>- have knowledge of relevant resources for handling acute pollution at sea</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of the importance of assessing the possible consequences for health, safety and the environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- resources available in Norway</li> <li>- government resources</li> <li>- private resources (e.g. from NOFO)</li> <li>- the equipment's capacities, possibilities and limitations</li> <li>- challenges associated with procurement and location of the equipment</li> <li>- assessment of use of the equipment in various situations</li> <li>- risk factors</li> </ul>
<p><b>F06.7 Practical material knowledge</b></p>	<ul style="list-style-type: none"> <li>- be able to use relevant equipment for handling acute pollution</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of the importance of assessing the possible consequences for health, safety and environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- the equipment's function and technical operation</li> <li>- the equipment's capacities, possibilities and limitations</li> <li>- practical review of relevant equipment</li> <li>- experience with use of the equipment from previous operations</li> <li>- consequences of incorrect use of material</li> <li>- risk factors</li> <li>- HSE, Job Safety Analysis (JSA) and personal protective equipment</li> </ul>
<p><b>F08.2 Health and safety measures</b></p>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of assessing the health risk when handling acute pollution</li> <li>- have knowledge and an understanding of use of personal protective equipment when handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- guidelines for addressing health and safety in orders and plans</li> <li>- HSE folder for use during oil spill response operations</li> <li>- product safety data sheets</li> <li>- health risks</li> <li>- safety measures</li> <li>- gas detection equipment</li> <li>- personal protective equipment and safety clothing</li> <li>- communication plan as a safety factor</li> <li>- measures in case of acute accident</li> <li>- reporting routines</li> </ul>

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Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
<b>F09.3</b> <b>Tactical and operational organisation and management: Situation assessment</b>	- be able to assess the various factors that have an impact on the possibility to solve the assignment - have an understanding of the importance of assessing health, safety and environment risk associated with solution of the assignment	<ul style="list-style-type: none"> <li>- interpretation of given assignments</li> <li>- the importance of systematic HSE work</li> <li>- risk assessment</li> <li>- Job Safety Analysis (JSA)</li> <li>- access to the scene</li> <li>- location of the OSC's command centre</li> <li>- communication possibilities</li> <li>- type and properties of the pollution</li> <li>- source of the pollution</li> <li>- identifying the extent of the pollution</li> <li>- sampling</li> <li>- mitigating pollution from the source</li> <li>- assessing measures and methods associated with vulnerable and prioritised areas</li> <li>- meteorology and oceanography</li> <li>- use and development of inspection reports - drafting orders</li> <li>- communicating orders to subordinate units</li> </ul>
<b>F09.4</b> <b>Tactical and operational organisation and management: Assignments and execution</b>	- have knowledge and be able to use material and resources available based on the current situation assessment	<ul style="list-style-type: none"> <li>- assessment of the capacities of the resources available</li> <li>- use and organisation of human resources based on expertise</li> <li>- identification and implementation of necessary HSE training</li> <li>- coordination with other units and functions</li> <li>- sources of information, monitoring methods</li> <li>- different methods of preventing the spread of pollution, and also measures required to prevent secondary pollution - techniques and tactics when using relevant equipment</li> <li>- different methods of recovering oil and polluted masses depending on the operations phase and polluted area</li> <li>- different cleaning and / or decontamination techniques depending on the operations phase and polluted area</li> </ul>

<b>F09.5</b> <b>Tactical and operational organisation and management: Administration and supply service</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the importance of having an overview of resources available</li> <li>- have knowledge and an understanding of the importance of source separation and facilitating optimum waste management</li> </ul>	<ul style="list-style-type: none"> <li>- planning, reconnaissance and location of the advance depot</li> <li>- administration and management</li> <li>- facilities (personnel and material) - material conveyance and replenishment, flow of goods</li> <li>- receipt of personnel and delivery of equipment</li> <li>- mapping expertise</li> <li>- briefing on the situation, assignment, HSE</li> <li>- quartering and catering</li> <li>- overview and distribution of resources - communicate resource requirements to the operations management</li> <li>- clarification of financial authority and authorisations - financial follow-up</li> <li>- accounting and documentation - waste management, including source separation, intermediate storage and transport</li> </ul>
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Training programme for handling acute pollution

Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course
<b>F09.6</b> <b>Tactical and operational organisation and management: Communication and management</b>	<ul style="list-style-type: none"> <li>- have knowledge and understanding of the importance of being present, having a common situation picture and communication</li> </ul>	<ul style="list-style-type: none"> <li>- relevant communication equipment</li> <li>- development of communication plan</li> <li>- documentation and logging</li> <li>- structure of own situation picture</li> <li>- contribution to common situation picture</li> <li>- reporting</li> <li>- use of decision-making support tool</li> </ul>
<b>F07.3</b> <b>Media handling</b>	<ul style="list-style-type: none"> <li>- have knowledge of the media's role and work methods</li> <li>- have knowledge and understand of how to establish a good dialogue with the media</li> </ul>	<ul style="list-style-type: none"> <li>- the media's role and work methods</li> <li>- access to the scene</li> <li>- dialogue with the media</li> <li>- information strategy</li> </ul>
<b>F10.1</b> <b>Assignments and exercises</b>	<ul style="list-style-type: none"> <li>- be able to use suitable theoretical expertise in practical assignments and exercises</li> </ul>	<ul style="list-style-type: none"> <li>- see the description under 2.7.8</li> </ul>
<b>F01.2</b> <b>Conclusion and evaluation</b>	<ul style="list-style-type: none"> <li>- assess what you have learn and evaluate the course</li> </ul>	<ul style="list-style-type: none"> <li>- assessment of what you have learnt or using a special form</li> <li>- final evaluation of the course as regards the goals and expectations or using a special form</li> <li>- award of course certificate</li> </ul>

## 2.7.8 Assignments and exercises

Assignments and exercises will focus on the most relevant aspects for the course participants and the course context.

On completion of the course, participants shall

- have good skills in use of communication equipment
- have basic skills in use of relevant equipment for handling acute pollution
- have training in planning and implementing operations against acute pollution at sea

- have basic skills in order to be able to fill the role as On-Scene Commander Sea

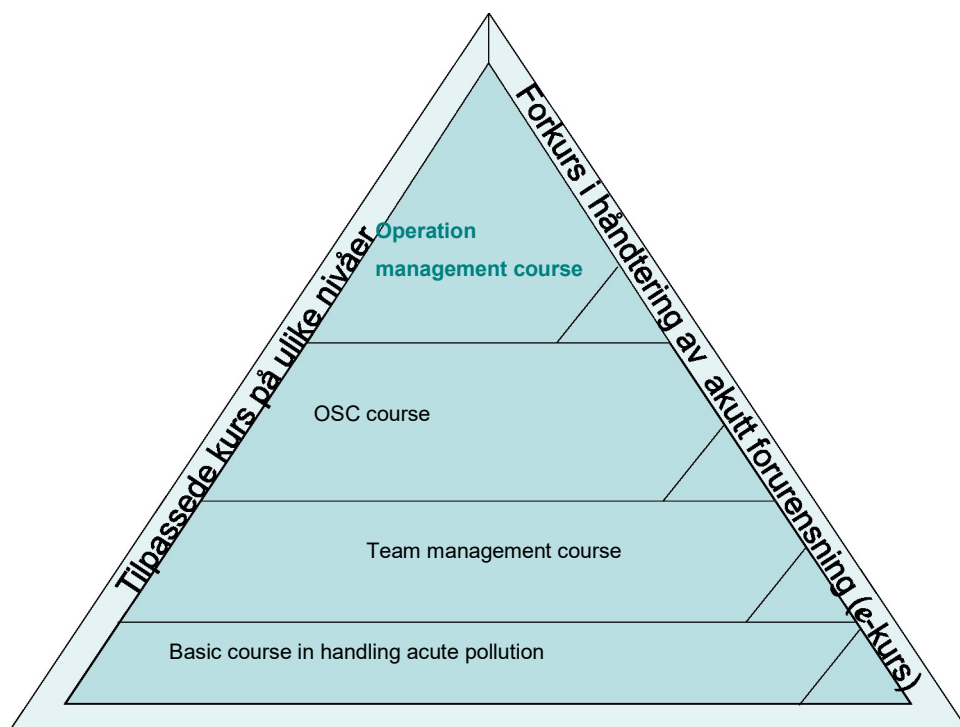
Training programme for handling acute pollution

## 2.8 Operations management course

In order for the training to qualify for the relevant roles in handling acute pollution, as described in the Pollution Control Act, course organisers must ensure that the training is conducted in accordance with the applicable training programme. The training programme must be available on NCA's website at all times

Relevant institutions must have satisfactory facilities and equipment in order to be able to arrange the course in accordance with the objectives in the training programme. During training and exercises, the safety of the course participants must be ensured in accordance with the applicable regulations.

### 2.8.1 Position of the course in the training structure



### 2.8.2 Main objectives

The main objective of the course is to qualify the participants in order to be able to fill the role as operations manager or as a member of the operations management's staff during operations against acute pollution. On completion of the course, participants shall

- be able to lead or participate in management of operations against acute pollution
- be able to assist the leader responsible for the operation as regards help making the right decisions, taking action and following this up



### 2.8.3 Target group

The target group is personnel who have or are intended a role on the operation management's staff during operations against acute pollution. The course will also be suitable for personnel who are intended to have duties as On-Scene Commanders in order to familiarise them with the duties and functions of the operation management.

### 2.8.4 Previous knowledge requirements

Course participants must have completed the team management and on-scene commander course or have equivalent expertise.

### 2.8.5 Assessment

Participants will receive guidance from lecturers and instructors during the course. It is assumed that participants attend the whole course and participate actively in the training and exercises. Participants will receive a course certificate on completion of the course. Skills are maintained through participation in exercises or during operations.

### 2.8.6 Sub-topics and number of hours training

The course comprises 26 x 45 minute sessions and usually takes place over three days. The course is composed of sub-topics that together cover the course's learning objectives. The sub-topics have been grouped under subject areas that largely correspond to the disciplines found in NCA's staff organisation. The staff has been organized according to the *unified management system* (ELS).

The distribution of subjects and number of hours defines an appropriate academic progression for the course and therefore, the sub-topics should be covered in the set order. The total time allocated for assignments and exercises can be split up and included where this is most suitable for the academic progression.

The table below gives the recommended distribution of hours for the various sub-topics. The distribution must be adjusted to the course participants' previous knowledge and the context of the course. It is important that the learning objectives of the course are met.

Sub-topic	Operation management course	No. of hours of training
F01.1	Information and start-up	0.5
F02.1	Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution	1
F02.2	Requirements for preparedness against handling acute pollution	
F02.3	Sources of acute pollution	
F02.4	Emergency response plans	
F03.1	Staff organisation and work during operations	2
F07.1	Staff duties for the support functions	
F03.2	Coordination and management of operations	
F03.3	Exchange of best practice from relevant operations	
F04.1	Staff duties for the planning and environment function	1
F04.2	Understanding of operations	
F04.3	Operation strategy	
F04.4	Decision-making support tool	1
F04.5	Structure of common situation picture	
F04.6	Order format and reporting	1
F04.7	Logging and documentation	
F04.9	Specialisation in the properties and environmental impact of pollutants	2
F04.10	egenskaper og miljøeffekterEnvironmental considerations	
F04.11	Shoreline cleaning	
F04.12	Environmental surveys	
F04.13	Remote sensing, environmental monitoring and information	
F04.14	Meteorology and oceanography	
F04.15	Use of dispersants and shoreline cleaning agents	
F04.16	Oil accounts	
F05.1	Staff duties – operation function	2
F05.2	Practising operations	
F05.3	Communication of assignments. Reporting.	
F05.4	Communication plan and lines of communication	
F06.1	Staff duties – logistics function	3
F06.2	Overview of resources for handling acute pollution	
F06.3	Human resource management	
F06.4	Equipment for handling acute pollution – sea	
F06.5	Equipment for handling acute pollution – coast and shoreline	
F06.6	Equipment for handling acute pollution – land	
F06.8	Planning waste management	
F06.9	Practical waste management	
F06.10	Procurement	
F06.11	Finance	
F07.2	Legal liability during operations	
F07.3	Media handling	1
F09.1	Roles and duties of OSC in the organisation	1
F08.1	Staff duties for safety coordinator	1
F08.2	Health and safety measures	
F10.1	Assignments and exercises (see description under 2.8.8)	9
F01.2	Conclusion and evaluation	0.5

	<b>TOTAL</b>	<b>26</b>
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### 2.8.7 Learning objectives and main elements

Satisfactory handling of acute pollution requires that the involved parties have the knowledge, skills and attitudes that enable them to fill their intended role. Therefore, the learning objectives include knowledge, skills and attitude targets.

The learning objectives should guide the training, but emphasis on the sub-topics could vary both as regards time spent and degree of specialisation. This will depend on the course participants' previous knowledge and the context of the course.

The lists of main elements state what it would be natural to include in the course in order to achieve the learning objectives for the sub-topic. The order in which the main elements have been set up is not meant to be followed slavishly. It will also be necessary to adjust the various main elements to the previous knowledge of the course participants. In some cases, certain main elements may be irrelevant.

Both the course organiser and the participants' experiences from previous events and operations will be important resources in the training. The possibility for exchange of best practice should be used during the whole course.



<b>Operation Management Course</b>		
<b>Sub-topic</b>	<b>Learning objectives: Participants shall</b>	<b>Main elements of the course:</b>
<b>F01.1 Information and start-up</b>	<ul style="list-style-type: none"> <li>- be motivated to acquire the anticipated skills during the course</li> <li>- be motivated to create a good learning environment</li> </ul>	<ul style="list-style-type: none"> <li>- purpose of the course</li> <li>- review of the course content</li> <li>- requirements for passing the course</li> <li>- clarification of expectations</li> <li>- information regarding practical and administrative matters during the course</li> <li>- presentation of instructors and course participants</li> </ul>
<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F02.1 Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the responsibilities and authority in the national preparedness against acute pollution</li> <li>- have knowledge and an understanding of organisation of operations against acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- definition of acute pollution</li> <li>- why we take action against acute pollution</li> <li>- responsibilities, authority and duties in the preparedness at private, municipal, intermunicipal and government level</li> <li>- relationship between relevant legislation and practising own role in the preparedness against acute pollution</li> <li>- notification regulations and instructions - partners who can perform tasks in preparedness and operations against acute pollution</li> <li>- relevant agreements in preparedness against acute pollution at private, municipal, intermunicipal and government level - the operations organisation</li> <li>- ethical challenges associated with the subject area</li> <li>- awareness of own role and on whose behalf you are acting</li> </ul>
<b>F02.2 Requirements for preparedness against and handling acute pollution</b>	<ul style="list-style-type: none"> <li>- be familiar with the various requirements for preparedness against and handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- requirement for notification of acute pollution</li> <li>- relevant paragraphs in the Pollution Control Act with associated regulations</li> <li>- requirement for companies that have a duty to have an emergency response system</li> <li>- relevant paragraphs in the Fire and Explosion Prevention Act with associated regulations</li> <li>- others laws and regulations that regulate the area</li> </ul>
<b>F02.3 Sources of acute pollution</b>	<ul style="list-style-type: none"> <li>- be informed about the risk of acute pollution as regards the petroleum industry, shipping, onshore industry and storage and transport of hazardous substances</li> </ul>	<ul style="list-style-type: none"> <li>- statistical material (quantity and volume)</li> <li>- extent and location of the petroleum activities</li> <li>- other polluting activities</li> <li>- transport of oil, condensate and other hazardous substances</li> <li>- hazard classes, labelling</li> <li>- exchange of best practice from relevant events</li> </ul>

<b>F02.4 Emergency response plans</b>	- have knowledge and an understanding of the importance of Emergency response plans - be able to use the Emergency response plan in practice	- need for Emergency response plan - structure of an Emergency response plan - the importance of an updated and known plan in the organisation - knowledge of use of Emergency response plans - the importance of practising use of an
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<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F03.1 Staff organisation and work during operations</b>	- have knowledge and an understanding of staff work and the position of the relevant functions in the operations organization	- purpose of the staff work - establishment of the staff - the responsibilities, authority and duties of the operations manager - staff meetings: forum for decisions and strategy for further progress - facilities and tools - the position of the functions in the staff - perseverance of the staff
<b>F07.1 Staff duties for the support functions</b>	- have knowledge and an understanding of the roles of the functions in the staff organisation	- responsibilities and authority - the information function - finance function - legal function - ICT function - technical support to primary functions and the operations manager in own disciplines: human resources administration, media strategy, procurement, financial and legal support, ICT - administrative guidelines
<b>F03.2 Coordination and management of operations</b>	- have knowledge and an understanding of how coordination and management between the various management levels and the functions in the operations organisation takes place	- structure of the operations organisation - responsibilities and authority in the operations organisation - lines of communication, order lines and reporting between the various management levels Operations management, on-scene commanders, regional and team management - lines of communication and reporting between the various functions in the operations organisation - status and staff meetings, situation reports - liaison's responsibilities, authority and duties - external advisers' responsibilities, authority and duties - relevant specialist environments that can provide advice - organisation and management in private operations - statements to the media
<b>F03.3 Exchange of best practice from previous operations</b>	- know how previous operations against acute pollution have been implemented	- review of previous operations relevant to the contents and objectives of the course - legal, organizational, financial and ethical aspects of previous operations

<b>F04.1 Staff duties for the planning and environment function</b>	- have knowledge and an understanding of the function's role in the staff	- the function's responsibilities and authority - the function's duties - internal communication and coordination in the staff
<b>F04.2 Understanding of operations</b>	- have an understanding of the importance of strategic planning of operations	- principles used for strategies and prioritising in the operations management - structure of action plans - lines of communication and reporting - the importance of following action plans

Training programme for handling acute pollution

<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F04.3 Operation strategy</b>	- be able to contribute to the work on strategic planning of operations	- long-term planning - worst case scenario plan - probable development of the incident - proactive planning - precautionary principle - continuous assessment of action taken and priorities - coordination and prioritising of resources - lines of communication and reporting - logging and documentation
<b>F04.4 Decision-making support tool</b>	- have knowledge of and be able to use relevant decision-making support tools	- maps - reference books - electronic databases - simulation tools for
<b>F04.5 Structure of the common situation picture</b>	- have an understanding of the need for a common situation picture - have knowledge of methods of preparing a common situation picture	simulering- obtain information for assessments and decisions - quality assurance of information - information sharing: communication of a common situation picture - various map solutions and their possibilities and limitations - log and overview of resources - other relevant support tools for operations against acute pollution
<b>F04.6 Order format and reporting</b>	- have knowledge of development of an assignment document - have an understanding of the need for reporting	- plans and orders for operations - internal process in the staff for input to the assignment document - duration of the order - need for situation reporting - relevant attachments - coordination of the operation function when implementing orders
<b>F04.7 Logging and documentation</b>	- have an understanding of the importance of documentation during the operation - have knowledge of logging	- continuity in the flow of information - documentation of decisions - use of relevant logging tools and other documentation - minutes from staff meetings

<p><b>F04.9</b>  <b>Specialisation in the properties and environmental impact of the pollutants</b></p>	<ul style="list-style-type: none"> <li>- have knowledge of the various properties of the pollutants (oils and other chemicals)</li> <li>- have knowledge of sampling and analysis of oil and other chemicals - have knowledge of drift and dispersion of oil on sea</li> <li>- have knowledge of dispersion of chemicals in water, air and soil</li> <li>- have knowledge of sources of and routines for obtaining information about the properties of pollutants</li> </ul>	<ul style="list-style-type: none"> <li>- chemical and physical properties of pollutants</li> <li>- break down of various oils on sea and land</li> <li>- meteorology and oceanography</li> <li>- drift trajectory calculation</li> <li>- various weather services</li> <li>- atmosphere modelling</li> <li>- oceanography modelling</li> <li>- applications and limitations of the methods</li> <li>- product safety data sheets</li> <li>- sampling</li> <li>- analysis</li> <li>- chemical and physical properties of chemicals (liquid, gas and solid form)</li> <li>- hazardous goods folder</li> <li>- RVK/ICE scheme</li> <li>- other relevant databases</li> </ul>
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Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
<b>F04.10 Environmental assessments</b>	<ul style="list-style-type: none"> <li>- have knowledge of vulnerable natural resources and recreational areas and how various resources and measures shall be prioritized in relation to each other</li> <li>- take cultural monuments into consideration</li> <li>- have knowledge of the assessments that must be made in order to implement measures that cause as little environmental impact as possible</li> <li>- have knowledge of regional expertise that assist during operations</li> <li>- have knowledge of measures</li> </ul>	<ul style="list-style-type: none"> <li>- environmental impact of acute pollution</li> <li>- development of environmental objectives</li> <li>- environmental priorities</li> <li>- measures that have the minimum possible environmental impact - maps that provide an overview of natural resources, spawning and nesting areas, marine life, recreational areas, cultural monuments and fish farms, etc. - County Governor's environment department, county conservationist, county geologist - responsibilities and authority for handling oil-damaged wildlife</li> <li>- relevant laws and regulations</li> <li>- relevant decision-making authorities</li> </ul>
<b>F04.11 Shoreline cleaning</b>	<p>kunnskap om tiltak overfor oljeskadd</p> <ul style="list-style-type: none"> <li>- be able to develop a plan for the shoreline cleaning phase</li> </ul>	<ul style="list-style-type: none"> <li>- registration methods</li> <li>- various types of shoreline</li> <li>- various methods of cleaning as regards effectiveness and environmental impact - various phases of the cleaning operation</li> <li>- consideration for logistics, waste management and secondary pollution</li> <li>- criteria for adequate cleaning</li> <li>- OSC's duties and responsibilities during the cleaning phase</li> <li>- relevant advisers and authorities - HSE</li> </ul>
<b>F04.12 Environmental surveys</b>	<ul style="list-style-type: none"> <li>- under the purpose of environmental surveys -</li> <li>- be able to implement an environmental survey programme</li> </ul>	<ul style="list-style-type: none"> <li>- legal basis</li> <li>- finance</li> <li>- environmental survey programme - mapping possible impact in the long and short-term - food safety</li> <li>- the role of various authorities</li> </ul>
<b>F04.13 Remote sensing, environmental monitoring and information</b>	<ul style="list-style-type: none"> <li>- have knowledge of existing methods for detecting, monitoring and identifying acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- various remote sensing sensors</li> <li>- satellite monitoring</li> <li>- plane and helicopter surveillance</li> <li>- surveillance from vessel</li> <li>- surveillance from installation</li> <li>- common situation picture</li> <li>- basis for real time picture of distribution of vulnerable natural resources (birds, marine mammals, etc.)</li> </ul>
<b>F04.14 Meteorology and oceanography</b>	<ul style="list-style-type: none"> <li>- have a basic knowledge of general meteorology and oceanography</li> <li>- have knowledge of the various sources of information about meteorology and oceanography</li> </ul>	<ul style="list-style-type: none"> <li>- sårbare naturressurser (fugl, sjøpattedyr etc.)- atmosphere modelling</li> <li>- oceanography modelling</li> <li>- applications and limitations of the methods</li> <li>- drift trajectory calculations</li> <li>- various weather services</li> </ul>

<b>F04.15</b> <b>Use of dispersants and shoreline cleaning agents</b>	<ul style="list-style-type: none"> <li>- have knowledge of use of dispersants and shoreline cleaning agents</li> </ul>	<ul style="list-style-type: none"> <li>- relevant regulations</li> <li>- relevant authorities</li> <li>- possibilities and limitations</li> <li>- methods for use of dispersants and shoreline cleaning agents</li> <li>- procedures for optimum use of specific agents</li> <li>- control and decision form for dispersants</li> <li>- relevant equipment</li> <li>- product safety data sheets</li> </ul>
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Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
<b>F04.16</b> <b>Oil accounts</b>	<ul style="list-style-type: none"> <li>- have an understanding of the importance of oil accounts</li> <li>- have knowledge of how oil accounts can be kept</li> </ul>	<ul style="list-style-type: none"> <li>- spill potential</li> <li>- various fractions that can be recovered</li> <li>- return to clean oil</li> <li>- instructions and requirements for renovator</li> </ul>
<b>F05.1</b> <b>Staff duties – operation function</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the function's role in the staff</li> </ul>	<ul style="list-style-type: none"> <li>- the function's responsibilities and authority</li> <li>- the function's duties - internal communication and coordination among the staff</li> </ul>
<b>F05.2</b> <b>Practising the operational activities</b>	<ul style="list-style-type: none"> <li>- have an understanding of what operational activities involve - be able to translate plans into operational activities - be able to follow-up the operation</li> </ul>	<ul style="list-style-type: none"> <li>- situation understanding</li> <li>- priority areas</li> <li>- translate assignment in action plan into orders</li> <li>- follow-up of implementation of orders</li> <li>- assessment of the impact of measures taken</li> <li>- assess the need for new measures</li> <li>- give input for adjustment of plans</li> </ul>
<b>F05.3</b> <b>Communicating assignments. Reporting</b>	<ul style="list-style-type: none"> <li>- have knowledge of communication of assignments</li> <li>- have understanding of the need for reporting</li> </ul>	<ul style="list-style-type: none"> <li>- assignments given as orders</li> <li>- various methods of communication and routines for received and understood assignments</li> </ul>
<b>F05.4</b> <b>Communication plan and lines of communication</b>	<ul style="list-style-type: none"> <li>- be able to understand and use a communication plan</li> </ul>	<ul style="list-style-type: none"> <li>-- situasjonsrapporteringcommunication equipment, possibilities and limitations</li> <li>- rules and procedures for use of communication equipment</li> <li>- communication and reporting routines</li> </ul>
<b>F06.1</b> <b>Staff duties – logistics function</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the function's role in the staff</li> </ul>	<ul style="list-style-type: none"> <li>- the function's responsibilities and authority</li> <li>- the function's assignments - internal communication and coordination among the staff</li> </ul>
<b>F06.2</b> <b>Overview of resources</b>	<ul style="list-style-type: none"> <li>- have a general overview of the resources for handling acute pollution</li> <li>- have an understanding of the importance of proper materials management</li> </ul>	<ul style="list-style-type: none"> <li>- private, municipal and government resources for handling acute pollution</li> <li>- agreements regarding national assistance - agreements regarding international assistance</li> <li>- agreements with private parties</li> <li>- human resources</li> <li>- relevant goods and services</li> <li>- the importance of keeping an overview of use of allocated resources</li> <li>- tools that help provide an overview and create</li> </ul>

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		<p>Conditions for resource management</p> <ul style="list-style-type: none"> <li>- operational logistics</li> </ul>
<b>F06.3 Management of Human Resources</b>	<ul style="list-style-type: none"> <li>- have knowledge of management of human resources</li> <li>- be able to administer human resources during operations</li> </ul>	<ul style="list-style-type: none"> <li>- employment</li> <li>- employer liability</li> <li>- insurance and remuneration</li> <li>- training</li> <li>- quartering and catering</li> <li>- cooperation with relevant support functions</li> </ul>
<b>F06.4 Equipment for handling acute pollution - sea</b>	<ul style="list-style-type: none"> <li>- have knowledge of relevant resources for handling acute pollution at sea</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of the importance of assessing possible consequences for health, environment and safety when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- resources available in Norway</li> <li>- government resources</li> <li>- private resources (e.g. from NOFO) - the equipment's capacity, possibilities and limitations</li> <li>- challenges associated with procurement and location of equipment</li> <li>- assessment of use of the equipment in various situations</li> <li>- risk factors</li> </ul>
<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F06.5 Equipment for handling acute pollution – coast and shoreline</b>	<ul style="list-style-type: none"> <li>- have knowledge of the relevant resources for handling acute pollution on the coast and shoreline</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of the importance of assessing possible consequences for health, safety and environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- municipal and inter-municipal resources available</li> <li>- government resources</li> <li>- private resources</li> <li>- the equipment's capacity, possibilities and limitations</li> <li>- challenges associated with procurement and location of the equipment</li> <li>- assessment of use of the equipment in various situations</li> <li>- risk factors</li> </ul>
<b>F06.6 Equipment for handling acute pollution - land</b>	<ul style="list-style-type: none"> <li>- have knowledge of the relevant resources for handling acute pollution onshore</li> <li>- have an understanding of the importance of proper materials management</li> <li>- have an understanding of the importance of assessing possible consequences for health, safety and environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- private resources available</li> <li>- municipal and inter-municipal resources available</li> <li>- government resources</li> <li>- the equipment's capacity, possibilities and limitations</li> <li>- challenges associated with procurement and location of equipment</li> <li>- assessment of use of the equipment in various situations</li> <li>- risk factors</li> </ul>

<b>F06.8 Planning waste management</b>	- be able to plan waste management	- plans for management of contaminated waste - secondary contamination - source separation - flow of waste - service provider (contract format) - oil accounts - transition between acute and cleaning phase
<b>F06.9 Practical waste management</b>	- have knowledge of waste management methods and be able to lead this work	- source separation - labelling - waste mitigation - preparation for transport - collection points
<b>F06.10 Procurement</b>	- have knowledge of procurement - have an understanding of the importance of complying with the law and regulations regarding public procurement	- law and regulations regarding public procurement - guidelines that regulate supply of resources for private enterprises - ethics and impartiality - operational grounds - documentation - contracts and framework agreements - work with relevant support functions
<b>F06.11 Finance</b>	- have knowledge of financial processes associated with operations against acute pollution	- forecast - project accounts - authority structure - reimbursement requirements - documentation (self-explaining vouchers)
<b>F07.2 Legal liability during operations</b>	- have knowledge and an understanding of legal liability during operations	- relevant legislation - legal liability of various parties - operation management's exercise of authority, legal authority, orders, decisions, liability and insurance matters - understanding of and attitude to own role in the operations - agreements entered into during an operation

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<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F07.3 Media handling</b>	- have knowledge of the media's role and work methods - have knowledge and an understanding of how to establish a good dialogue with the media	- media's role and work methods - access to the scene - dialogue with the media - information strategy
<b>F09.1 OSC's role and duties in the organization</b>	- have knowledge and an understanding of the OSC's role	- OSC's responsibilities, authority and duties - the staff's role as support to the OSC - coordination and communication between the various OSCs



<b>F08.1</b> <b>Duties of safety coordinator</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the role of safety coordinator</li> </ul>	<ul style="list-style-type: none"> <li>- safety coordinator's responsibilities and authority</li> <li>- relevant HSE requirements</li> <li>- methods of identifying health risk</li> <li>- Job Safety Analysis (JSA)</li> <li>- risk-mitigating measures</li> <li>- safety zones and evacuation</li> <li>- measures in case of an acute incident</li> <li>- the operation management's monitoring of the health and safety work during operations</li> <li>- attitudes and behaviour</li> </ul>
<b>F08.2 Health and safety measures</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of assessment of the health risk when handling acute pollution</li> <li>- have knowledge and an understanding of the use of personal protective equipment when handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- guidelines for ensuring health and safety in orders and plans</li> <li>- HSE folder for use during oil spill response operations</li> <li>- product safety data sheets</li> <li>- health risk</li> <li>- safety measures</li> <li>- utstyr for deteksjon av gass</li> <li>- verneutstyr og vernebekledning</li> <li>- communication plan as a safety factor</li> <li>- action in the event of an acute incident</li> <li>- reporting routines</li> <li>- attitudes and behaviour</li> </ul>
<b>F10.1</b> <b>Assignments and exercises</b>	<ul style="list-style-type: none"> <li>- be able to use acquired theoretical expertise in practical assignments and exercises</li> </ul>	<ul style="list-style-type: none"> <li>- see the description under 2.8.8</li> </ul>
<b>F01.2</b> <b>Conclusion and evaluation</b>	<ul style="list-style-type: none"> <li>- assess what you have learnt and evaluate the course</li> </ul>	<ul style="list-style-type: none"> <li>- assessment of what you have learnt, if necessary using a special form</li> <li>- final evaluation of the course as regards goals and expectations, if necessary using a special form</li> <li>- award of course certificate</li> </ul>

## 2.8.8 Assignments and exercises

Assignments and exercises will focus on what is most relevant to the course participants and the course context.

Objective of the exercise, part 1:

The participants shall receive an introduction to drafting orders based on the presented scenario.

On completion of the exercise, participants shall

- be familiar with the other participants in their own group
- know the main contents of each staff function's most important contribution to drafting the initial orders
- be able to draw up a collective plan for taking action against acute pollution

Objective of the exercise, part 2:

The exercise is based on knowledge the participants have acquired during the course and group discussions.

On complete of the exercise, participants shall

- be able to draft orders to be used or tested during an exercise
- have experience how pressure during the planning work affects the final document

Objective of the exercise, part 3:

Participants shall learn about teamwork among own staff and communication with the operations organisation and with the outside world.

On completion of the exercise and evaluation of this, participants shall

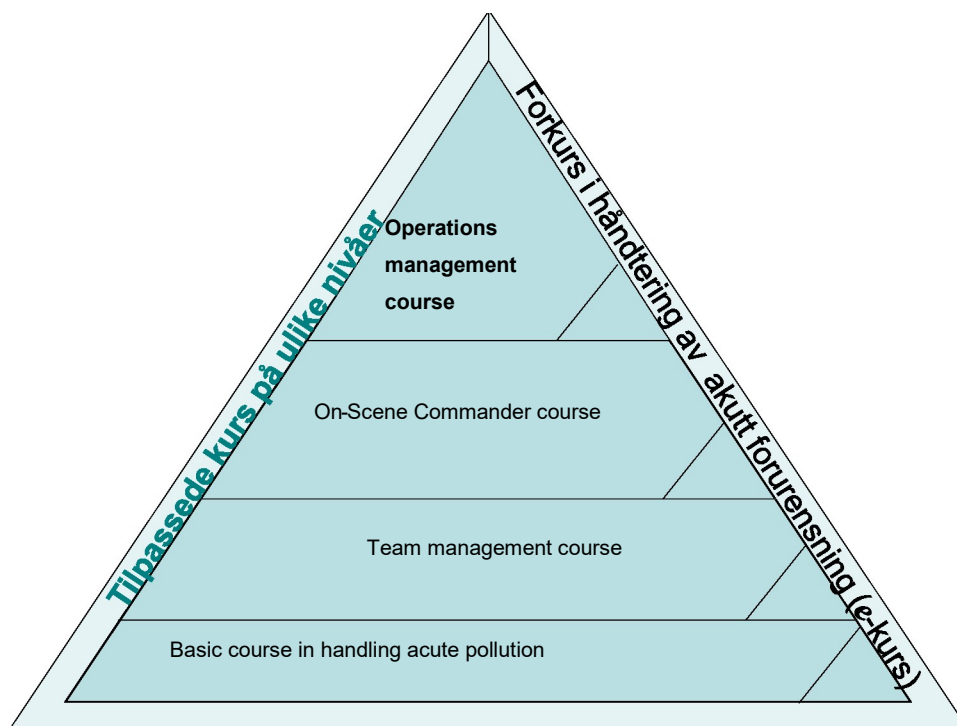
- be able to fill the management and staff functions during operations against acute pollution
- be able to take action in accordance with the drafted orders and adjust the action based on the development of the situation
- have gained an overview of the various parties' possible contributions to an operation against acute pollution
- have an insight into the need for cooperation among the staff

## 2.9 Tailored courses in the subject of handling acute pollution

In order for the training to qualify for the relevant roles in handling acute pollution as described in the Pollution Control Act, course organisers must ensure that the training is conducted in accordance with the applicable training programme. The training programme must be available at all times on NCA's website.

Relevant institutions must have satisfactory facilities and equipment in order to be able to arrange the course in accordance with the objectives in the training programme. During training and exercises, the safety of the course participants must be ensured according to the applicable regulations.

### 2.9.1 Position of the course in the training structure



### 2.9.2 Main objectives

To be formulated for each course

### 2.9.3 Target group

To be formulated for each course

### 2.9.4 Previous knowledge requirements To

be formulated for each course.

## 2.9.5 Assessment

Participants receive guidance from lecturers and instructors during the course. It is assumed that the participants attend the whole course and participate actively in the training and exercises. Participants will be awarded a course certificate on completion of the course. Expertise is maintained through participation in exercises or operations.

The course organiser is considering other relevant assessment methods.

## 2.9.6 Sub-topics and number of hours

Tailored courses in handling acute pollution must always include the sub-topics listed in the table below. In other respects, the course is composed of sub-topics that together cover the course's learning objectives. This may be sub-topics taken from disciplines in Chapter 3 and / or other sub-topics that are relevant to the course.

<b>Tailored courses</b>		
<b>Sub-topic</b>		<b>No. of hours</b>
<b>F01.1</b>	<b>Information and start-up</b>	
<b>F02.1</b>	<b>Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution</b>	
<b>F02.2</b>	<b>Requirements for preparedness against and handling acute pollution</b>	
<b>F08.2</b>	<b>Health and safety measures</b>	
	<b>Other relevant sub-topics from Chapter 3.</b>	
	<b>Sub-topics tailored to the course</b>	
<b>F01.2</b>	<b>Conclusion and evaluation</b>	
	<b>TOTAL</b>	

## 2.9.7 Learning objectives and main elements

Satisfactory handling of acute pollution requires that the involved parties have the knowledge, skills and attitudes that enable them to fill their intended role. Therefore, the learning objectives include knowledge, skills and attitude targets.

The learning objectives should guide the tuition, but emphasis on the sub-topics could vary both as regards time spent and degree of specialisation. This will depend on the course participants' previous knowledge and the course context.

The lists of main elements state what it would be natural to include in the course in order to achieve the learning objectives for the sub-topic. The order in which the main elements have been set up is not meant to be followed slavishly. It will also be necessary to adjust the various main elements to the previous knowledge of the course participants. In some cases, certain main elements may be irrelevant.

Both the course organiser and the participants' experiences from previous events and operations will be important resources in the training. The possibility for exchange of best practice should be used during the whole course.

The following sub-topics are compulsory for all special courses if the sub-topics are not covered through courses the participants have taken previously:

<b>Sub-topic</b>	<b>Learning objectives: The participants shall</b>	<b>Main elements of the course:</b>
<b>F01.1 Information and start-up</b>	<ul style="list-style-type: none"> <li>- be motivated to acquire the anticipated expertise during the course</li> <li>- be motivated to create a good learning environment</li> </ul>	<ul style="list-style-type: none"> <li>- purpose of the course</li> <li>- review of the contents of the course</li> <li>- requirements for passing the course</li> <li>- clarification of expectations</li> <li>- information about practical and administrative matters during the course</li> <li>- presentation of instructors and course participants</li> </ul>
<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
<b>F02.1 Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of responsibilities and authority in the national preparedness against acute pollution</li> <li>- have knowledge and an understanding of organisation of operations against acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- definition of acute pollution</li> <li>- why we take action against acute pollution - responsibilities, authority and duties in the preparedness at private, municipal, intermunicipal and government level</li> <li>- relationship between relevant legislation and practising own role in the preparedness against acute pollution - notification regulations and instructions - partners that can perform duties in preparedness and operations against acute pollution</li> <li>- relevant agreements in preparedness against acute pollution at private, municipal, inter-municipal and government level</li> <li>- the operations organisation</li> <li>- ethical challenges associated with the discipline</li> <li>- awareness of own role and on whose behalf you are acting</li> </ul>

<b>F02.2</b> <b>Requirements for preparedness against and handling acute pollution</b>	- be familiar with the various requirements for preparedness against and handling acute pollution	- requirements for notification of acute pollution - relevant paragraphs in the Pollution Control Act with associated regulations - requirements for enterprises that have a duty to have an emergency response system - relevant paragraphs in the Fire and Explosion Prevention Act with associated regulations - other laws and regulations that regulate the area
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Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
<b>F08.2 Health and safety measures</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of assessment of the health risk when handling acute pollution</li> <li>- have knowledge and an understanding of use of personal protective equipment when handling acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- guidelines for ensuring health and safety in orders and plans</li> <li>- HSE folder for use during oil spill recovery operations</li> <li>- product safety data sheets</li> <li>- health risk</li> <li>- safety measures</li> <li>- gas detection equipment</li> <li>- personal protective equipment and safety clothing</li> <li>- communication plan as a safety factor</li> <li>- action in the event of an acute incident</li> <li>- reporting routines</li> <li>- attitudes and behaviour</li> </ul>
<b>Other relevant sub-topics taken from Chapter 3.</b>		
<b>Sub-topics adapted to the course</b>		
<b>F01.2 Conclusion and evaluation</b>	- assess what you have learnt and evaluate the course	<ul style="list-style-type: none"> <li>- assessment of what you have learnt, if necessary using a special form</li> <li>- final evaluation of the course as regards objectives and expectations, if necessary using a special form</li> <li>- award of course certificate</li> </ul>

## 2.9.8 Assignments and exercises

Assignments and exercises will focus on what is most relevant to the course participants and the course context.

On completion of the course, participants shall ...

Possible description of assignments and exercises.

## 3 Subject areas and sub-topics

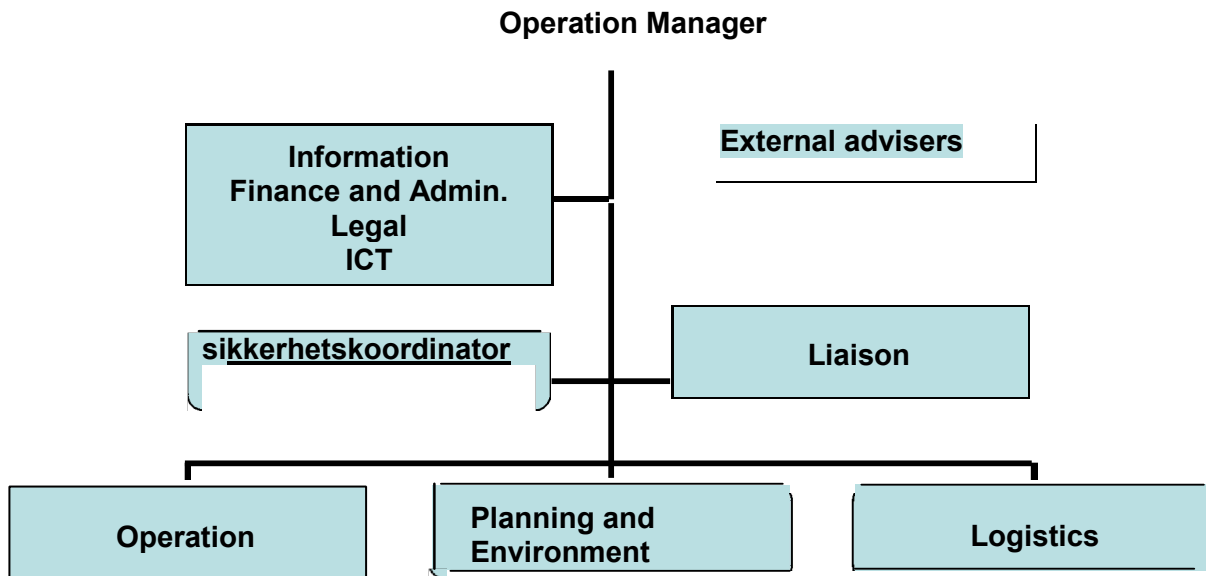
### 3.1 List of subject areas and sub-topics

The subject areas mainly correspond to the subject division found in NCA's staff organisation.

The staff has been organized according to *unified management system* (ELS, cf. figure below).

The sub-topics have been grouped under the subject areas to which they naturally belong. The

sub-topics under subject area 09 have been structured in accordance with the normal structure of orders during an operation (five-point order).



Learning objectives and main elements of the course have been formulated for each sub-topic, refer to Chapter 3.2. The learning objectives will be a guide for the training, but the emphasis on sub-topics will vary from course to course both as regards time spent and degree of specialisation. The lists of main elements give the elements it would be natural to include in the course in order to achieve the learning objectives for the sub-topic. The order in which the main elements have been set up is not intended to be followed slavishly. It will also be necessary to adjust the main elements to the course participants' previous knowledge. In some cases, certain main elements may be irrelevant.

**Subject area F01 – Course administration**

- F01.1 Information and start-up
- F01.2 Conclusion and evaluation

**Subject area F02 – Preparedness against and handling acute pollution**

- F02.1 Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution
- F02.2 Requirements for preparedness against and handling acute pollution
- F02.3 Sources of acute pollution
- F02.4 Emergency response plans

**Subject area F03 – Organisation and management of operations**

- F03.1 Staff organisation and work during operations
- F03.2 Cooperation and management of operations
- F03.3 Exchange of best practice from relevant operations

**Subject area F04 – Planning and environment**

- F04.1 Staff duties - planning and environment function
- F04.2 Understanding of operations
- F04.3 Operations strategy
- F04.4 Decision-making support tool
- F04.5 Structure of common situation picture
- F04.6 Order format and reporting
- F04.7 Logging and documentation
- F04.8 Basic information on the properties and environmental impact of pollutants
- F04.9 Specialisation in the properties and environmental impact of pollutants
- F04.10 Environmental considerations
- F04.11 Shoreline cleaning
- F04.12 Environmental surveys
- F04.13 Remote sensing, environmental monitoring and information
- F04.14 Meteorology and oceanography
- F04.15 Use of dispersants and shoreline cleaning agents
- F04.16 Oil accounts

**Subject area F05 – Operation**

- F05.1 Staff duties – operation function
- F05.2 Practising operational activities
- F05.3 Communication of assignments. Reporting
- F05.4 Communication plan and lines of communication

**Subject area F06 – Logistics**

- F06.1 Staff duties – logistics function
- F06.2 Overview of resources
- F06.3 Human resource management
- F06.4 Equipment for handling acute pollution - sea
- F06.5 Equipment for handling acute pollution – coast and shoreline
- F06.6 Equipment for handling acute pollution - land
- F06.7 Practical material know-how
- F06.8 Waste management planning
- F06.9 Practical waste management
- F06.10 Procurement
- F06.11 Finance

**Subject area F07 – Support functions**

- F07.1 Staff duties – support functions



F07.2 Legal liability during operations

F07.3 Media handling

**Subject area F08 – Health and safety**

F08.1 Staff duties – safety coordinator

F08.2 Health and safety measures

**Subject area F09 – Tactical and operational organisation and management**

F09.1 OSC's role and duties in the organisation

F09.2 Team leader's role and duties in the organisation

F09.3 Tactical and operational organisation and management: Situation assessment

F09.4 Tactical and operational organisation and management: Assignments and execution

F09.5 Tactical and operational organisation and management: Administration and supply service

F09.6 Tactical and operational organisation and management: Communication and management

**Subject area F10 – Assignments and exercises**

F10.1 Assignments and exercises

### 3.2 Overview of all subject areas and sub-topics with learning objectives and main elements

Subject area F01: Course administration	Sub-topic	Learning objectives: Participants	Main elements of the course:
	<b>F01.1 Information and start-up</b>	<b>shall-</b> be motivated to acquire the expected expertise during the course - be motivated to create a good learning environment	<ul style="list-style-type: none"> <li>- purpose of the course</li> <li>- review of the course content</li> <li>- requirements for passing the course</li> <li>- clarification of expectations</li> <li>- information regarding practical and administrative matters during the course - presentation of instructors and course participants</li> </ul>
	<b>F01.2 Conclusion and evaluation</b>	- assess what you have learnt and evaluate the course	<ul style="list-style-type: none"> <li>- assessment of what you have learnt, if necessary using a special form</li> <li>- final evaluation of the course as regards objectives and expectations, if necessary using a special form</li> <li>- award of course certificate</li> </ul>
Subject area F02: Preparedness against and handling acute pollution	Sub-topic	Learning objectives: On completion of the course, participants shall	Main elements of the course:
	<b>F02.1 Responsibilities, authority and role sharing in Norwegian preparedness against acute pollution</b>	- have knowledge and an understanding of the responsibilities and authority in the national preparedness against acute pollution - have knowledge and an understanding of organisation of operations against acute pollution	<ul style="list-style-type: none"> <li>- definition of acute pollution - why take action against acute pollution</li> <li>- responsibilities, authority and duties in the preparedness at private, municipal, inter-municipal and government level - relationship between relevant requirements for preparedness against acute pollution and practising one role in the preparedness against acute pollution</li> <li>- notification regulations and instructions - partners who can perform tasks in preparedness and operations against acute pollution</li> <li>- relevant agreements in preparedness against acute pollution at private, municipal, inter-municipal and government level</li> <li>- the operations organisation</li> <li>- ethical challenges associated with the subject area</li> <li>- awareness of own role and on whose behalf you are acting</li> </ul>
	<b>F02.2 Requirements for preparedness against and</b>	- be familiar with various requirements regarding preparedness against	<ul style="list-style-type: none"> <li>- requirements for notification of acute pollution</li> <li>- relevant paragraphs in the Pollution Control Act with associated regulations</li> </ul>

	<b>handling acute pollution</b>	and handling acute pollution	<ul style="list-style-type: none"> <li>- requirements for enterprises with a duty to have an emergency response system</li> <li>- relevant paragraphs in the Fire and Explosion Prevent Act with associated regulations</li> <li>- other laws and regulations that regulate the area</li> </ul>
	<b>F02.3 Sources of acute pollution</b>	<ul style="list-style-type: none"> <li>- be informed about the risk of acute pollution as regards the petroleum industry, shipping, onshore industry and storage and transport of hazardous substances</li> </ul>	<ul style="list-style-type: none"> <li>- statistical material (quantity and volume)</li> <li>- extent and location of the petroleum activities - other polluting activities</li> <li>- transport of oil, condensate and other hazardous substances</li> <li>- hazard classes, labelling - exchange of best practice from relevant events</li> </ul>
	<b>F02.4 Emergency response plans</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the importance of Emergency response plans</li> <li>- be able to use the Emergency response plan in practice</li> </ul>	<ul style="list-style-type: none"> <li>- need for an emergency response plan</li> <li>- structure of an emergency response plan</li> <li>- the importance of updated and known plans in the organisation - familiar with use of emergency response plans</li> <li>- the importance of practising use of the emergency response plan</li> </ul>
<b>Subject area F03: Organisation and management of operations</b>	<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
	<b>F03.1 Staff organisation and work during operations</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of staff work and the position of the relevant functions in the operations organisation</li> </ul>	<ul style="list-style-type: none"> <li>- the purpose of staff work - establishment of the staff</li> <li>- the operation manager's responsibilities, authority and duties</li> <li>- staff meetings: forum for decisions and strategy regarding further progress</li> <li>- facilities and tools</li> <li>- the position of the functions in the staff</li> <li>- perseverance among the staff</li> </ul>

	<p><b>F03.2 Cooperation and management of operations</b></p>	<p>- have knowledge and an understanding of how cooperation and management between the various management level and functions in the operations organisation takes place</p>	<ul style="list-style-type: none"> <li>- structure of the operations organization</li> <li>- responsibilities and authority in the operations organization - lines of communication, order lines and reporting between the various management levels operations management, Onscene commanders, regional management, team management - lines of communication and reporting between the various functions in the operations organization</li> <li>- status and staff meetings, situation reports</li> <li>- liaison's responsibilities authority and duties</li> <li>- external advisers responsibilities</li> </ul>
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Training programme for handling acute pollution

Training programme for handling acute pollution			<ul style="list-style-type: none"> <li>- authority and duties</li> <li>- relevant specialist environments that can provide advice</li> <li>- organisation of management in private operations</li> <li>- statements to the media</li> </ul>
	<b>F03.3 Exchange of best practice from relevant operations</b>	- be familiar with how previous operations against acute pollution have been conducted	<ul style="list-style-type: none"> <li>- review of previous operations relevant to the course content and objectives</li> <li>- legal, organisational, financial and ethical aspects of previous operations</li> </ul>
<b>Subject area F04: Planning and environment</b>	<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants</b>	<b>Main elements of the course:</b>
	<b>F04.1 Staff duties – planning and environment function</b>	<b>shall-</b> have knowledge and an understanding of the role of the function	<ul style="list-style-type: none"> <li>- responsibilities and authority of the function</li> <li>- duties of the function - internal communication and cooperation among the staff</li> </ul>
	<b>F04.2 Understanding of operations</b>	- have an understanding of the importance of strategic planning of operations	<ul style="list-style-type: none"> <li>- principles used for strategies and priorities in the operations management</li> <li>- structure of action plans - lines of communication and reporting</li> <li>- the importance of following action plans</li> </ul>
	<b>F04.3 Operation strategy</b>	- be able to contribute to the work on strategic planning of operations	<ul style="list-style-type: none"> <li>- long-term planning</li> <li>- worst case scenario plan</li> <li>- probable development of the event</li> <li>- proactive planning</li> <li>- precautionary principle</li> <li>- continuous assessment of measures implemented and prioritizing</li> <li>- coordination and prioritizing resources</li> <li>- line of communication and reporting</li> <li>- logging and documentation</li> </ul>
	<b>F04.4 Decision-making support tool</b>	- have knowledge of and be able to use relevant decision-making support tools	<ul style="list-style-type: none"> <li>- maps</li> <li>- reference books</li> <li>- electronic databases</li> <li>- simulation tools</li> </ul>
	<b>F04.5 Structure of the common situation picture</b>	- have an understanding of the need for a common situation picture - have knowledge of the methods for preparing a common situation picture	<ul style="list-style-type: none"> <li>- collecting information for assessments and decisions</li> <li>- quality assurance of the information - information sharing, communication of common situation picture - various map solutions and their possibilities and limitations - log and resource overview</li> <li>- other relevant support tools during operations</li> </ul>
	<b>F04.6 Order format and reporting</b>	- have knowledge of preparation of assignment document - have an understanding of the need for reporting	<ul style="list-style-type: none"> <li>- plans and orders for operations - internal process in the staff for input to the assignment document</li> <li>- duration of the order</li> <li>- need for situation reporting</li> </ul>

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			- relevant attachments - coordination with operation function when implementing orders
	<b>F04.7 Logging and documentation</b>	- have an understanding of the importance of documentation during the operation - have knowledge of logging	- continuity of the flow of information - documentation of decisions - use of relevant logging tools and other documentation - minutes from staff meetings
	<b>F04.8 Basic information about the properties and environmental impact of pollutants</b>	- have knowledge of the properties and environmental impact of the various pollutants (oils and other chemicals)	- chemical and physical properties of relevant pollutants - breakdown of the various oils on the sea and land - chemical and physical properties of the various chemicals (liquid, gas and solid form)
	<b>F04.9 Specialisation in the properties and environmental impact of pollutants</b>	- have knowledge of the properties of the various pollutants (oils and other chemicals) - have knowledge of sampling and analysis of oil and other chemicals - have knowledge of drift and dispersion of oil on sea - have knowledge of dispersion of chemicals in water, air and soil - have knowledge of sources of and routines for collecting information about the properties of pollutants	-- HMS chemical and physical properties - datablader of pollutants - break down of various oil on the sea and land - meteorology and oceanography - drift trajectory calculation - various weather services - atmosphere modelling - oceanography modelling - the applications and limitations of the methods - product safety data sheets - sampling - analysis - chemical and physical properties of chemicals (liquid, gas and solid form) - Hazardous goods folder - the RVK/ICE scheme - other relevant databases

	<p><b>F04.10 Environmental assessments</b></p>	<ul style="list-style-type: none"> <li>- have knowledge about vulnerable natural resources and recreational areas and how various resources and measures must be prioritised in relation to each other - take cultural monuments into consideration</li> <li>- have knowledge of the assessments that must be made in order to be able to implement measures that gives as little environmental impact as possible</li> <li>- have knowledge of regional expertise that can provide assistance during operations - have knowledge of the measures to rescue oil-damage wildlife</li> </ul>	<ul style="list-style-type: none"> <li>- environmental impact of acute pollution</li> <li>- development of environmental objectives</li> <li>- environmental priorities</li> <li>- measures that have minimum environmental impact - maps showing the natural resources, spawning and nesting areas, marine life, recreational areas, cultural monuments and fish farms, etc.</li> <li>- County Governor's environment department, County Conservationist, county geologist – responsibilities and authority for handling oil damaged wildlife</li> <li>- relevant laws and regulations – relevant decision-making authorities</li> </ul>
	<p><b>F04.11 Shoreline cleaning</b></p>	<ul style="list-style-type: none"> <li>- be able to develop a plan for the shoreline cleaning phase</li> </ul>	<ul style="list-style-type: none"> <li>- registration methods</li> <li>- different types of shoreline - various cleaning methods as regards effectiveness and</li> </ul>

			<p>environmental impact - various cleaning up phases</p> <ul style="list-style-type: none"> <li>- consideration for logistics, waste management and secondary contamination</li> <li>- criteria for adequate cleaning – OSC's duties and responsibilities during the cleaning phase</li> <li>- relevant advisers and authorities - HSE</li> </ul>
	<b>F04.12 Environmental surveys</b>	<ul style="list-style-type: none"> <li>- understand the purpose of environmental surveys</li> <li>- be able to implement the environmental survey programme</li> </ul>	<ul style="list-style-type: none"> <li>- legal basis</li> <li>- finance</li> <li>- environmental survey programme - mapping possible impact in the short and long-term</li> <li>- food safety</li> <li>- role of various authorities</li> </ul>
	<b>F04.13 Remote sensing, environmental monitoring and information</b>	<ul style="list-style-type: none"> <li>- have knowledge of existing methods for detecting, monitoring and mapping acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- various remote sensing sensors</li> <li>- satellite surveillance</li> <li>- plane and helicopter surveillance</li> <li>- monitoring from vessels</li> <li>- monitoring from installations</li> <li>- common situation picture - basis for real time picture of distribution of vulnerable natural resources (birds, marine mammals, etc.</li> </ul>
	<b>F04.14 Meteorology and oceanography</b>	<ul style="list-style-type: none"> <li>- have a basic knowledge of general meteorology and oceanography - have knowledge of various sources of information on meteorology and oceanography</li> </ul>	<ul style="list-style-type: none"> <li>- atmosphere modelling</li> <li>- oceanography modelling</li> <li>- applications and limitations of the methods</li> <li>- drift trajectory calculations</li> <li>- various weather services</li> </ul>
	<b>F04.15 Use of dispersants and shoreline cleaning agents</b>	<ul style="list-style-type: none"> <li>- have knowledge of use of dispersants and shoreline cleaning agents</li> </ul>	<ul style="list-style-type: none"> <li>- relevant regulations</li> <li>- relevant authorities</li> <li>- possibilities and limitations - methods for use of dispersants and shoreline cleaning agents - procedures for optimum use of specific agents</li> <li>- control and decision form for dispersants</li> <li>- relevant equipment</li> <li>- product safety data sheets</li> </ul>
	<b>F04.16 Oil accounts</b>	<ul style="list-style-type: none"> <li>- have an understanding of the importance of oil accounts</li> <li>- have knowledge of how oil accounts are kept</li> </ul>	<ul style="list-style-type: none"> <li>- spill potential</li> <li>- various fractions recovered</li> <li>- return to clean oil</li> <li>- instructions and requirements for the renovator</li> </ul>



<b>Subject area F05: Operation</b>	<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
	<b>F05.1 Staff duties – operation function</b>	- have knowledge and an understanding of the role of the function	- responsibilities and authority of the function - duties - internal communication and cooperation
	<b>F05.2 Practising</b>	- have an understanding of what	- situation understanding - focus areas

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	<b>operational activities</b>	operational activities involves – be able to translate plans into operational activities - be able to follow-up the operation	- translate assignments in the action plan into orders - follow-up of implementation of orders - assessment of the impact of action taken - assess the need for new action - give input to adjustment of plans
	<b>F05.3 Communication of assignments. Reporting</b>	- have knowledge of communicating assignments - have an understanding of the need for reporting	- assignments given as orders - various methods of communication and routines for receiving and understanding assignments - situation reporting
	<b>F05.4 Communication plan and lines of communication</b>	- be able to understand and use a communication plan	- communication equipment, possibilities and limitations - rules and procedures for use of communication equipment - communication and reporting routines
<b>Subject area F06: Logistics</b>	<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
	<b>F06.1 Staff duties logistics function</b>	- have knowledge and an understanding of the role of the function	- responsibilities and authority of the function - duties of the function - internal communication and cooperation among the staff
	<b>F06.2 Overview of resources for handling acute pollution</b>	- have a general overview of resources for handling acute pollution - have an understanding of the importance of proper materials management	- private, municipal and government resources for handling acute pollution - agreements regarding national assistance - agreements regarding international assistance - agreements with private parties - human resources - relevant goods and services - the importance of keeping an overview of use of allocated resources - tools that help provide an overview and create conditions for resource management

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	<b>F06.3 Human resource management</b>	<ul style="list-style-type: none"> <li>- have knowledge of human resource management - be able to administer human resources during operations</li> </ul>	<ul style="list-style-type: none"> <li>- employment</li> <li>- employer liability</li> <li>- insurance and remuneration</li> <li>- training</li> <li>- quartering and catering - cooperation with relevant support functions</li> </ul>
	<b>F06.4 Equipment for handling acute pollution - sea</b>	<ul style="list-style-type: none"> <li>- have knowledge of relevant resources for handling acute pollution at sea</li> <li>- have understanding of the importance of proper materials management - have an understanding of the importance of assessing possible consequences for health, safety and environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- resources available in Norway</li> <li>- government resources</li> <li>- private resources (e.g. from NOFO)</li> <li>- the equipment's capacities, possibilities and limitations - challenges associated with procurement and location of equipment</li> <li>- assessment of use of the equipment in various situations</li> <li>- risk factors</li> </ul>

forståelse for betydningen

	<b>F06.5 Equipment for handling acute pollution – coast and shoreline</b>	<ul style="list-style-type: none"> <li>- have knowledge of relevant resources for handling acute pollution on the coast and shoreline</li> <li>- have an understanding of the importance of proper materials management - have an understanding of the importance of assessing the possible consequences for health, safety and environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- municipal and inter-municipal resources available - government resources</li> <li>- private resources</li> <li>- the equipment's capacities, possibilities and limitations - challenges associated with procurement and location of equipment</li> <li>- assessment of use of the equipment in various situations</li> <li>- risk factors</li> </ul>
	<b>F06.6 Equipment for handling acute pollution – land</b>	<ul style="list-style-type: none"> <li>- have knowledge of relevant resources for handling acute pollution on land</li> <li>- have an understanding of the importance of proper materials management - have an understanding of the importance of assessing the possible consequences for health, safety and environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- private resources available</li> <li>- municipal and inter-municipal resources available - government resources - the equipment's capacities, possibilities and limitations - challenges associated with procurement and location of equipment</li> <li>- assessment of use of the equipment in various situations</li> <li>- risk factors</li> </ul>

	<b>F06.7 Practical material know-how</b>	<ul style="list-style-type: none"> <li>- be able to use relevant equipment for handling acute pollution</li> <li>- have an understanding of the importance of proper materials management -</li> <li>- have an understanding of the importance of assessing the possible consequences for health, safety and environment when using the equipment</li> </ul>	<ul style="list-style-type: none"> <li>- the equipment's function and technical operation</li> <li>- the equipment's capacities, possibilities and limitations - practical review of relevant equipment</li> <li>- experience with use of equipment from previous operations</li> <li>- consequences of incorrect use of material</li> <li>- risk factors</li> <li>- HSE, Job Safety Analysis (JSA) and personal protective equipment</li> </ul>
	<b>F06.8 Waste management planning</b>	<ul style="list-style-type: none"> <li>- be able to plan waste management</li> </ul>	<ul style="list-style-type: none"> <li>- plans for handling contaminated waste</li> <li>- secondary contamination</li> <li>- source separation</li> <li>- flow of waste</li> <li>- service provider (contract format)</li> <li>- oil accounts</li> <li>- transition between the acute and cleaning phase</li> </ul>
	<b>F06.9 Practical waste management</b>	<ul style="list-style-type: none"> <li>- have knowledge of waste management methods in order to be able to lead this work</li> </ul>	<ul style="list-style-type: none"> <li>- source separation</li> <li>- labelling</li> <li>- mitigation of waste</li> <li>- preparation for transport</li> <li>- collection points</li> </ul>
	<b>F06.10 Procurement</b>	<ul style="list-style-type: none"> <li>- have knowledge about procurement</li> <li>- have an understanding of the importance of complying with laws and regulations regarding public procurement</li> </ul>	<ul style="list-style-type: none"> <li>- laws and regulations regarding public procurement</li> <li>- guidelines that regulate the supply of resources to private enterprises</li> <li>- ethics and impartiality</li> <li>- operational grounds</li> </ul>

			<ul style="list-style-type: none"> <li>- documentation</li> <li>- contracts and framework agreements</li> <li>- cooperation with relevant support functions</li> </ul>
	<b>F06.11 Finance</b>	<ul style="list-style-type: none"> <li>- have knowledge about financial processes associated with operations against acute pollution</li> </ul>	<ul style="list-style-type: none"> <li>- forecast</li> <li>- project accounts</li> <li>- authorisation structure</li> <li>- reimbursement requirements - documentation (self-explaining vouchers)</li> </ul>
<b>Subject area F07: Support functions</b>	<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>
	<b>F07.1 Staff duties – support functions</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the role of the functions in the staff organisation</li> </ul>	<ul style="list-style-type: none"> <li>- responsibilities and authority</li> <li>- the information function</li> <li>- the finance function</li> <li>- the legal function</li> <li>- the ICT function</li> <li>- technical support to primary functions and the operation manager in own discipline: HR administration, media strategy, procurement, finance and legal support, ICT</li> <li>- administrative guidelines</li> </ul>
	<b>F07.2 Legal liability during operations</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of legal liability during operations</li> </ul>	<ul style="list-style-type: none"> <li>- relevant legislation</li> <li>- the legal liability of the various parties</li> <li>- the operations management's exercise of authority, legal authorisation, orders, decisions, responsibilities and insurance - understanding of and attitudes to own role in the operation - agreements entered into during an operation</li> </ul>
	<b>F07.3 Media handling</b>	<ul style="list-style-type: none"> <li>- have knowledge of the media's role and work methods</li> <li>- have knowledge and an understanding of how to establish a good dialogue with the media</li> </ul>	<ul style="list-style-type: none"> <li>- media's role and work methods</li> <li>- access to the scene</li> <li>- dialogue with the media</li> <li>- information strategy</li> </ul>
<b>Subject area F08: Health and safety</b>	<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>

	<b>F08.1 Staff duties – safety coordinator</b>	- have knowledge and an understanding of the safety coordinator's role	- safety coordinator's responsibilities and authority - relevant HSE requirements - methods of identifying health hazards and risks - Job Safety Analysis (JSA) - risk-mitigating measures - safety zones and evacuation - measures in the event of acute accident - operations management's followup of health and safety work during operations - attitudes and behaviour
	<b>F08.2 Health</b>	- have knowledge and an understanding of	- guidelines for focusing on health and safety in orders and plans

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	<b>and safety measures</b>	the health risk associated with handling acute pollution - have knowledge and an understanding of use of personal protective equipment when handling acute pollution	- HSE for use during oil spill response operations - product safety data sheets - health risk - safety measures - gas detection equipment - personal protective equipment and safety clothing - communication plan as a safety factor - measures in case of acute incident - reporting routines
<b>Subject area F09: Tactical and operational organisation and management</b>	<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>-Main elements of the course</b> holdninger og atferd :
	<b>F09.1 OSC's role and duties in the organisation</b>	- have knowledge and an understanding of the OSC's role	- OSC's responsibilities, authority and duties - the staff's role as support to the OSC - cooperation and communication between various OSCs
	<b>F09.2 Team leader's role and duties in the organisation</b>	- have knowledge and an understanding of the team leader's role and duties - have basic skills in motivating and leading allocated personnel	- responsibilities, authority and duties - motivation and management - inspection work - collection of information - follow-up of the ongoing work - work and situation reports - HSE plan for own work area

	<p><b>F09.3 Tactical and operational organisation and management: Situation assessment</b></p>	<ul style="list-style-type: none"> <li>- be able to assess the various factors that affect the possibility to solve the assignment</li> <li>- have an understanding of the importance of assessing health, safety and environment risk associated with solving the assignment</li> </ul>	<ul style="list-style-type: none"> <li>- interpretation of given assignments</li> <li>- importance of systematic HSE work</li> <li>- risk assessment</li> <li>- Job Safety Analysis (JSA)</li> <li>- access to the scene</li> <li>- location of the OSC's command centre</li> <li>- communication possibilities</li> <li>- type and properties of the pollution</li> <li>- source of pollution</li> <li>- mapping the extent of pollution</li> <li>- sampling</li> <li>- mitigating the pollution from the source</li> <li>- assessment of measures and methods associated with vulnerable and prioritised areas - meteorology and oceanography - use of development of inspection reports</li> <li>- drafting orders</li> <li>- communication of orders to subordinate units</li> </ul>
	<p><b>F09.4 Tactical and operational organization and</b></p>	<ul style="list-style-type: none"> <li>- have knowledge of and be able to use available material and resources based on</li> </ul>	<ul style="list-style-type: none"> <li>- assessment of the capacity of resources available - use and organisation of human resources based on</li> </ul>

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	<p><b>management: Assignments and execution</b></p>	<p>current situation assessment</p>	<p>expertise</p> <ul style="list-style-type: none"> <li>- mapping and implementing the necessary HSE training</li> <li>- cooperation with other units and functions</li> <li>- source of information, monitoring methods</li> <li>- various methods to prevent the spread of the pollution, and also measures to avoid secondary contamination</li> <li>- techniques and tactics when using relevant equipment</li> <li>- various methods of recovering oil and contaminated masses depending on the operation phase and polluted area</li> <li>- different cleaning and / or decontamination techniques depending on the operation phase and polluted area</li> </ul>
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	<b>F09.5 Tactical and operational organisation and management: Administration and supply service</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the importance of keeping an overview of resources available</li> <li>- have knowledge and an understanding of the importance of source separation and facilitating optimum waste management</li> </ul>	<ul style="list-style-type: none"> <li>- planning, reconnaissance and location of advance depot</li> <li>- administration and management</li> <li>- facilities (personnel and materials)</li> <li>- material transport and replenishment, flow of goods - receipt of personnel and delivery of equipment</li> <li>- mapping competence</li> <li>- information about the situation, assignments, HSE</li> <li>- quartering and catering</li> <li>- resource overview and allocation of resources</li> <li>- communicate resource requirements to the operations management</li> <li>- clarification of financial authority and authorisation - financial follow-up</li> <li>- accounting and documentation - waste management, including source separation, intermediate storage and transport</li> </ul>
	<b>F09.6 Tactical and operational organisation and management: Communication and management</b>	<ul style="list-style-type: none"> <li>- have knowledge and an understanding of the importance of being present, having a common situation picture and communication</li> </ul>	<ul style="list-style-type: none"> <li>- relevant communication equipment</li> <li>- development of a communication plan</li> <li>- documentation and logging</li> <li>- structure of own situation picture</li> <li>- contribution to common situation picture</li> <li>- reporting</li> <li>- use of decision-making support tools</li> </ul>
<b>Subject area F10: Assignments and exercises</b>	<b>Sub-topic</b>	<b>Learning objectives: On completion of the course, participants shall</b>	<b>Main elements of the course:</b>

	<b>F10.1 Assignments and exercises</b>	- be able to use suitable theoretical expertise in Practical assignments and exercises	- to be defined further for each course
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## LOG

Version	Date	Amendment
01	28.12.2010	<b>Based on development version P.</b> Identical to development version P.

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Version 01



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