

Norwegian Oil Spill response – organization, training and exercises – are we prepared?

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1. Abstract

The intention of my presentation is to give you a broad picture of the background for the Norwegian emergency preparedness system against acute pollution, the role and responsibility of the different parts of the system and how we are working to be prepared for the next spill. Are we prepared for an oil spill incident in Norway? I hope to answer this question through my presentation.

2. Background about geography, weather and climate

The Norwegian coastline is one of the most challenging areas for oil spill response anywhere in the world. At this northern latitude there are huge variations in weather and light conditions. While some parts of the country have an arctic climate, mild winters with mean temperatures above freezing are common on the southwest coast. The length of the continental coastline is 25 148 km (including fjords and bays). In total the Norwegian shoreline adds up to 83 281 km (including fjords, bays and islands) which is two times around the equator. It is no exaggeration to say that under these geographical conditions, maintaining a well-functioning oil spill response preparedness and an effective oil spill response system is a challenging task.

3. The legal basis for the Norwegian Oil Spill Response

The Norwegian Oil Spill Preparedness is based on chapter 6 in The Pollution Control Act of 13 March 1981. The Act is based on the Polluter Pays Principle and states the responsibilities and obligations of the industry, the municipalities and the government with regard to acute pollution incidents.

The Pollution Control Act states that the National Contingency System is divided into private (industry), municipal and governmental contingency areas with specific responsibilities. In Norway, all contingency plans and organisations are standardised and co-ordinated. Hence, in the event of a major national emergency, the national contingency system will work as a single integrated response organisation.

3.1 Private preparedness

Industrial plants that can cause significant oil pollution are obliged to establish an adequate level of preparedness. The Climate and Pollution Agency sets requirements and supervises contingency measures against oil and chemical contamination. These requirements primarily apply to operators on the Norwegian Continental Shelf, the crude oil terminals, the refineries and companies distributing oil products as well as major industrial companies.

The requirements are stated in the regulations relating HES (Health, Environment and Safety) on the Norwegian continental shelf.

3.2 Municipal preparedness

In Norway the approx. 430 municipalities are divided into 34 intermunicipal preparedness areas; each with its own approved contingency plan. The local authorities are responsible for dealing with minor acute spills that may occur within the municipality due to normal activity, which are not covered by the polluter's private contingency arrangements. The local authorities, the fire departments, the port authorities etc. all collaborate on municipal preparedness. In addition, the municipalities have an obligation to assist the government in the event of a major oil pollution action.

3.3 The governmental preparedness

The governmental preparedness against acute pollution is targeted towards major instances of pollution and is based upon an assessment of environmental risk – not towards worst case incidents. Norwegian Coastal Administration is responsible for the governmental preparedness.

4. Background and responsibility of the Norwegian Coastal Administration – the governmental responsibility

The Norwegian Coastal Administration (NCA) is a Governmental agency under the Ministry of Fisheries and Coastal Affairs. The main tasks are to safeguard and develop the coastline for all users. The Norwegian Coastal Administration shall contribute to secure vessel traffic and good accessibility along the coast as well as a good, national preparedness against acute pollution.

The Norwegian Coastal Administration is responsible for organizing and maintaining the governmental oil spill response preparedness and for co-ordinating the governmental, the municipal and the private industry's preparedness in a national contingency system against acute pollution. This also involves controlling and monitoring any response operations undertaken by the industry or the municipalities' major spills from unidentified sources. Additionally, the NCA can provide resources to response-operations under private or municipal management. If the party responsible for carrying out the response-measures does not master the task, the NCA will assist, and (possibly) take over the management of the operation if so required. The NCA is responsible for co-ordinating private, municipal and Governmental preparedness into a national emergency response system.

4.1 Elements in the governmental preparedness

At present this preparedness consists of the following elements:

- The Norwegian Coastal Administration, Department for Emergency Response in Horten with stations in Tromsø and Bergen.
- 16 contingency depots with oil spill control equipment, trained personnel and small boats
- 4 governmental oil pollution control vessels.
- 8 Coast Guard vessels permanently equipped with oil recovery equipment
- One specially equipped surveillance aircraft
- Agreements with other governmental authorities and private industry regarding assistance with personnel and resources.
- International agreements regarding assistance in the event of oil spills, e.g. The Bonn Agreement (www.bonnagreement.org) and The Copenhagen Agreement (www.copenhagenagreement.org) and the agreement with Russia on oil spill response in the Barents Sea.

4.2 Co-operation with other governmental organisations

In incidents involving vessels in distress, the Main Rescue Coordination Centres have the responsibility for saving lives. NCA will have the responsibility for any clean-up operations of oil at sea and emergency-offloading measures on behalf of the ship owner. Norwegian

Maritime Directorate (NMD) has the responsibility to intervene with the owners and ensure the safety of the vessels. NCA and NMD therefore have developed a close co-operation with regard to operations aimed at vessels in distress.

On Director General level an agreement between NCA and The Petroleum Safety Agency has been established. The aim of this agreement is to have a forum for co-ordination and decision-making during response operations involving large oil spills from the petroleum activities. Examples of such operations are blowouts and other large spills from the production facilities offshore.

In addition, NCA has an agreement with the Norwegian Coast Guard and the Armed Forces regarding assistance with personnel and equipment. This agreement is the foundation for putting oil spill response equipment permanently on board 8 Coast Guard vessels.

There are also other agreements with different governmental bodies such as Civil Defence, National Metrological Centre etc.

5. Oil Spill response in Norway – operations and cooperation

All of the bodies with a responsibility for preparedness against acute pollution have, according to the pollution control act, to document their preparedness in a contingency plan.

5.1 Private preparedness

Around 70 land-based industrial companies, including refineries and coastal tank facilities are subject to separate preparedness requirements issued by the Climate and Pollution Agency (Klif).¹ They have also established their own contingency plans.

The oil companies operating on the Continental Shelf are subject to preparedness requirements following HES (Health, Environment and Safety) regulations for petroleum related activities. As regards the oil activities on the Norwegian Continental Shelf, the responsibility lies within the individual petroleum companies. All of the operating companies are members of NOFO (Norwegian Clean Seas Organisation), who render equipment and technical staff available to the afflicted oil companies.

It is the duty of all companies to have contingency plans and to take action in the event of acute pollution following own activities, as well as contribute to actions led by national and local authorities.

NCA will exercise supervisory authority by ensuring that sufficient actions are taken by the responsible polluter.

5.2 Municipal preparedness

The basis for the municipal/inter municipal preparedness is stated in the pollution control act. The Climate and Pollution Agency approves their emergency preparedness plans. One important part of the control procedures is to control that the plans are prepared according to the national system.

NCA will exercise supervisory authority by ensuring that sufficient actions are taken by the municipalities.

¹ The Climate and Pollution Agency (Klif) is the former Norwegian Pollution Control Administration (SFT)

6. How can we be prepared for the next incident?

It is essential that the participants of the oil spill response organization are qualified and have the proper training for the upcoming emergencies. Participation in training and exercises on a regular basis is required to maintain these qualifications.

The types of courses and exercises described in this chapter are the most common to uphold the competence of the three responsible parts of the national contingency system in Norway.

6.1 Training

The training courses are adapted to the following functions in the oil spill response organisations:

- Introduction (basic) training course
- Team leader course
- On-scene commander level course (OSC-Sea, OSC-Coast and OSC-Land)
- Incident Command course
- Course for governmental depot task force and technical supervisors
- Course for NOFO depot task force

The basic training course is designed for all personnel involved in the contingency organisation.

The team leader level is given a 4-day training course. The course consists of two days of lectures and two days of practical training. During the practical training one day is solely for hands-on exercises using booms and skimmers at sea and from the shoreline.

The 3-4 day on-scene commander level (OSC) focuses on operational management and tactical use of response equipment during an operation. Each course consists of lectures as well as practical training tailored to fit the needs of the various geographical response areas. (i.e. at sea, coast or on land).

The incident command of an oil spill response operation is given a three-day training course consisting of one day of lectures (theory) and two days of practical training. The latter is divided into a table-top exercise to familiarise the participants with their duties, and a role-playing exercise to train their abilities during a stressful incident.

On the governmental level, there are 16 depots with their own technical supervisor and a 10 men task force. The newcomers to the task force are given a four-day introduction course by NCA in Horten, and annually the whole task force is given appropriate training at the depot.

In addition to conduct the offshore oil companies special training courses in incident command and on scene command for their own staff. These courses are held by NOFO (Norwegian Clean Seas Association for Operating Companies)

WWF-World Wide Fund For Nature has since 2005 arranged between 3 and 6 courses with a total of 75-150 volunteers every year. The courses are planned in close cooperation with the Norwegian Coastal Administration. The course lasts 3 days, and is arranged for 20-30 people at a time. The project is a long-term, independent contribution to Norwegian oil spill preparedness, with a preliminary time frame of 5 years.²

The course has 3 major components:

² Source: WWF

- 1) practical oil spill clean-up and beach sanitation;
- 2) safety; and
- 3) nature values and environmental risk in coastal transport and petroleum business.

6.2 Exercises

In Norway, exercises conducted by NCA are adapted to the needs of the municipal and the governmental contingency organisations.

NCA has focus on training and exercises for the depot task force. Each depot has two activities annually. See picture below as ØDS and DG which indicates all of the activities. NCA has also experienced that it is important to conduct training together with the municipal/inter-municipal emergency preparedness organisations. In 2010 NCA will conduct 11 activities with the inter-municipal preparedness organizations. This activity is a combined training courses and staff exercise, see picture below.

Within the governmental contingency there are exercises arranged over a wide area to keep a high level of preparedness. Several large integrated exercises are arranged annually in which personnel and resources from the private industry, the municipalities, the government and the Coast Guard is taking part verifying that the national contingency system is operational.

On the international level a number of exercises are arranged annually based on different international obligations such as the Bonn agreement, the Nordic Copenhagen Agreement and the Agreement between Norway and Russia on oil spill response in the Barents Sea.

Below you can find a copy of the list of planned courses and exercise for the governmental preparedness in 2010.

Januar 2010								Februar 2010								Mars 2010							
Uke	Ma	Ti	On	To	Fr	Lø	Sø	Uke	Ma	Ti	On	To	Fr	Lø	Sø	Uke	Ma	Ti	On	To	Fr	Lø	Sø
53					1	2	3	5	1			4	5	6	7	9	1	2	3	4	5	6	7
1	4	5	6	7	8	9	10	6	8			11	12	13	14	10	8			11	12	13	14
2	11	12	13	14	15	16	17	7	15			18	19	20	21	11	15			18	19	20	21
3	18	19	20	21	22	23	24	8	22	23	24	25	26	27	28	12	22			26	27	28	
4	25			28	29	30	31									13	29	30	31				

April 2010								Mai 2010								Juni 2010							
Uke	Ma	Ti	On	To	Fr	Lø	Sø	Uke	Ma	Ti	On	To	Fr	Lø	Sø	Uke	Ma	Ti	On	To	Fr	Lø	Sø
13					1	2	3	17						1	2	22		1	2	3	4	5	6
14	5	6			9	10	11	18	3				7	8	9	23	7				11	12	13
15	12				16	17	18	19	10	11	12	13	14	15	16	24	14				18	19	20
16	19				22	23	24	20	17	18			21	22	23	25	21	22	23	24	25	26	27
17	26	27	28	29	30			21	24	25	26	27	28	29	30	26	28	29	30				

Juli 2010								August 2010								September 2010							
Uke	Ma	Ti	On	To	Fr	Lø	Sø	Uke	Ma	Ti	On	To	Fr	Lø	Sø	Uke	Ma	Ti	On	To	Fr	Lø	Sø
26					1	2	3	30							1	35							5
27	5	6	7	8	9	10	11	31	2	3	4	5	6	7	8	36	6				10	11	12
28	12	13	14	15	16	17	18	32	9	10	11	12	13	14	15	37	13				17	18	19
29	19	20	21	22	23	24	25	33	16	17	18	19	20	21	22	38					25	26	
30	26	27	28	29	30	31		34	23	24	25	26	27	28	29	39	27						

Oktober 2010								November 2010								Desember 2010									
Uke	Ma	Ti	On	To	Fr	Lø	Sø	Uke	Ma	Ti	On	To	Fr	Lø	Sø	Uke	Ma	Ti	On	To	Fr	Lø	Sø		
39					1	2	3	44	1				4	5	6	7	48			1	2	3	4	5	
40	4	5	6	7	8	9	10	45	8				11	12	13	14	49	6				9	10	11	12
41	11				15	16	17	46	15				19	20	21	50	13	14	15	16	17	18	19		
42	18				21	22	23	47	22				26	27	28	51	20	21	22	23	24	25	26		
43	25				28	29	30	48	29							52	27	28	29	30	31				

Large exercises

Øvelse Bergen	Uke 24
Øvelse Nordisk	Uke 38 (Sverige)
Øvelse Barents uke 23	
Olje på vann	uke 23

Training for depots

01 Horten	uke 20	Uke —
02 Kristiansand	uke 38	Uke 45
03 Stavanger	uke 12	Uke 45
04 Bergen	uke 24	Uke 49
15 Solund	uke 15	Uke 47
16 Fedje	uke 15	Uke 47
14 Florø	uke 37	Uke 05
05 Ålesund	uke 15	Uke 05
06 Ørland	uke 36	Uke 10
07 Sandnessjøen	uke 15	Uke 40
08 Bodø	uke 36	Uke 07
09 Lødingen	uke 18	Uke 45
10 Tromsø	uke 18	Uke 04
11 Hammerfest	uke 41	Uke 06
12 Vadsø	uke 23	Uke 43

Municipalities Courses

Inntrøndelag	uke 06	SKL Sjø	uke 46
Svalbard	uke 08	AKL	uke 47+48
Sør-Trøndelag	uke 09	IUAseminar	uke 44
Sunnmøre	uke 11	IUA - representant	strandrensegruppe
Midt-Finnmark	uke 12		uke 41
Vest-Agder	uke 16	NOFO-spøstteam	
Østerdalen	uke 18	til Horten ?	uke 35?
Buskerud	uke 35	Tidfestes senere:	
Østfold	uke 42	Beredskapsplan	
Sør-Troms	uke 42	Funksjonstrening	
Ofoten	uke 48	Myndex	



12. Januar 2010

Se neste side for detaljer

7. Improvement of the preparedness through procurement of equipment and experience from incidents

The Norwegian Government has, through the national budget for the last three years, given priority to the improvement of the governmental oil spill preparedness. There has been focus on replacement of the equipment, but also to improve the knowledge about the use of the equipment. Based on experience from several incidents it is also acknowledged that it is important to give priority to training and exercise for personnel on all levels.

Based on this NCA has increased the procurement of oil spill response equipment and the training and exercises activity.

NCA receives annually, through the national duty system, about 1100 notifications about acute pollution. Most of them are small spills where the polluter or the municipalities take care of the clean up.

NCA was in 2009 involved in three oil spill response operations; the "Crete Cement" incident in the Oslofjord, the grounding of the Russian vessel "Petrosavodsk" at Bear Island in the Barents Sea and finally the grounding of the vessel "Full City" in Telemark on the southeast coast of Norway. The beach cleaning after the Full City incident is not finalised.

All of these incidents gave us important experience and knowledge which we will use to further improve the national oil spill response.

8. Conclusions

In the title in the beginning of this presentation I raised the question "Are we prepared?" The answer to this is yes – but there are always possibilities for improvement. The budget situation is today positive, but reduced budgets will result in lower activity. It is expected reduced budgets due to the international economical situation.

On the organisational side the contingency system today is working well. The responsibility of the private industry and the municipalities is well understood and all the different organizations have contingency plans in place. Nevertheless, training and exercises will be important to be prepared.