





# **Global Initiative for West and Central Africa**

# Report National Workshop on OPRC Level 3 Training Course and Review of National Oil Spill Response System

Accra, Ghana 16 to 19 November 2009



Hosted by Environmental Protection Agency



#### NOTE

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## *Executive summary*

The purpose of this Workshop was to facilitate national capacity building and strengthening of oil spill preparedness, response and co-operation in Ghana. At present the development of the newly discovered Jubilee offshore oil field is in progress. It is estimated that production from this new big oil and gas field will commence during the last half of year 2010. In connection with the development of the oil field, the Ministry of Environment and Science and its Environmental Protection Agency have agreed to a major review and up-date of the National Oil Spill Contingency Plan in order to meet the latest national development with regard to the increased risk of oil spills.

The Workshop discussed issues such as international, national and local oil spill preparedness, response and cooperation, including contingency planning, response management and organization, response policy, media relations, claims and compensation. The second half of the workshop was dedicated to a review of the National Oil Spill Contingency Plan. The workshop considered designation of responsibilities, organizational structure and command issues. Special attention was given to the development of a national policy for the use of dispersant and Guidelines for Management and disposal of oil spill debris.

The participants, representing government agencies, local authorities, the oil industry and local utility companies had the right background knowledge and experiences to receive maximum benefit of the issues under consideration. Some participants had taken part in the national oil spill contingency planning process that has been ongoing for more than 15 years. A good understanding of the issues surrounding the National Oil Spill Contingency Plan was demonstrated during the Workshop by many relevant questions asked and the seriousness by which the various issues were considered.

The Workshop noted that Ghana is Party to the most important International Conventions related to oil spill preparedness and response like: OPRC 1990, CLC 1992, Fund 1992 and MARPOL 73/78. Ghana is also Party to the regional Abidjan Convention and its Protocol concerning Co-operation in Combating Pollution in Cases of Emergency, both from 1981.

The Workshop was well received and participants expressed the view that the level was relevant and the outcome was satisfactory.

The main recommendation of the Workshop was for the Environmental Protection Agency (the National Responsible Authority), as soon as possible, to amend the National Oil Spill Contingency Plan with the corrections that was identified and agreed to, during the group work. In this connection it was also agreed that the Environmental Protection Agency should consider establishing a small working group of key stakeholders to undertake a comprehensive review of the National Plan.

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# 1. Course Information

Course Title:

National OPRC Level 3 Training Course and Review of National Oil Spill Response System.

Host:

Environmental Protection Agency, Ministry of Environment and Science, Ghana

Venue

Coconut Grove Regency Hotel, Accra, Ghana.

Date

16 – 19 November 2009

Туре

National Workshop on Oil Spill Contingency Planning. The presentations made by the national experts representing the National Responsible Authority, Governmental Agencies, national utility companies, the oil industry and external experts. National presentations were related to the National Oil Spill Response System. External presentations were based on the IMO Model Course, Level 3 for Managers and Senior Officials.

Organised by

The International Maritime Organization (IMO) in co-operation with the Ghanaian Authorities

Participating countries

Ghana

Supported by

The International Petroleum Industries Environmental Conservation Association (IPIECA) under the Global Initiative for West and Central Africa (GI WACAF).

Number of participants

52

Number of external trainers

2

Summary

A National Workshop covering part of the OPRC Level 3 Training Course and a review of the National Oil Spill response System with the participation of Government and local authorities, the oil industry and local utility companies was held from 16 to 19 November 2009, at the Coconut Grove Regency Hotel in Accra, Ghana. The Workshop was organized by Ghana Environmental Protection Agency, in collaboration with IMO and supported by the IPIECA under the GI WACAF.

The Workshop drew participants from, Government Ministries, Departments and local authorities, the local oil industry and, utility companies from Ghana. The Presentations presented by Internal and External Experts were based on the IMO OPRC Level 3 course and the National Oil Spill Contingency Plan for Ghana.

# 2. Introduction

The International Maritime Organization (IMO) has, since 1996, in collaboration with the International Petroleum Industries Environmental Conservation Association (IPIECA) under the Global Initiative for West and Central. Africa (GI WACAF), provided support for the development of a modern national and regional oil spill contingency plan for the West and Central African States. In parallel, IMO and IPIECA have also supported the development of a regional framework on co-operation in cases of major oil spills under the United Nations Environment Programme (UNEP), Regional Seas Programme for West and Central Africa.

With regards to Ghana, the preparation of a national oil spill response capability has been under consideration and development since the 1980s. In 1994, by Act No. 490, the Minister responsible for Environment and Science was designated as the Minister responsible for the implementation of the national Oil Spill Contingency Plan (NOSCP) and enforcement of relevant laws relating to protection of the Marine Environment, inland waterways including Lake Volta and the terrestrial ecosystem. The adoption of this Act resulted in an increased attention on the development of a National Plan. In the same year IMO provided the framework for a modern national oil spill contingency plan in compliance with the application of the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), 1990 and internationally adopted Guidelines on Oil Spill Contingency Planning. The first NOSCP was adopted in the late 1990s and has since then been reviewed and amended several times.

Ghana has ratified the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), 1990, but not yet it's HNS Protocol from 2000. Ghana is party to the International Convention on Civil Liability for Oil Pollution Damage by Ships, 1992 (CLC 1992) and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992 (FUND 1992).

Ghana is Party to Annexes I - V of the International Convention on the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78).

Ghana is also party to the Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention1981) and its Protocol concerning Co-operation in Combating Pollution in Cases of Emergency (Emergency Protocol (1981). Ghana has actively participated in meetings of IMO and in the regional activities under the Abidjan Convention.

Recent developments including the discovery of oil and gas in commercial quantities in the marine waters of Ghana and the West African sub-region and the continent at large, has called for immediate steps to review and up-date the NOSCP.

In addition, in order to realize the objective of the National Plan in general, Ghana considered the urgent need for further capacity building and thus invited IMO and IPIECA to assist in organizing a National Workshop on National Oil Spill Contingency Planning to be held from 16 to 19 November 2009 in Accra, Ghana.

IMO and IPIECA under the GI WACAF project contracted Miss Gail Nxumalo of Oil Spill Response Limited and Mr. John Østergaard of The Oil Spill Training Company Limited, to conduct an OPRC Level 3 Training Course followed by a Review of the National Oil Spill Response System.

# 3. Course Preparation and Implementation

The preparatory work for the organization of the National Workshop was carried out by the IMO and IPIECA in close co-operation with Ghana Environmental Protection Agency (EPA). EPA was responsible for all practical and

logistical arrangements in Accra. Tullow Oil Company Ghana Limited, who is responsible for the development of the Jubilee oil field, provided funding for the venue, refreshments and lunches.

Key presentations provided by the external experts were based on the IMO OPRC Level 3 Model Training Course. Due to the comprehensive programme and the limited time available for the Workshop, more than two-thirds of the available time was used in connection with the review of the National Oil Spill Response System. No background information on the qualifications and oil spill response knowledge of the participants were provided prior to the course.

The National Workshop was conducted in a conference room at the Coconut Grove Regency Hotel in Accra. The meeting room was adequate for the Workshop. Refreshments etc were provided in an adjacent outdoor patio. Lunches were served in the restaurant of the hotel. The seating of the meeting room was comfortable with adequate desk space. The facilities were satisfactory and the logistics and services provided by EPA and the Hotel were excellent and contributed greatly to the overall success of the Workshop.

The standard IMO Model training course workbook was provided in electronic format by IMO and IPIECA and distributed to all the participants at the end of the Workshop. A limited number of IMO publications including the OPRC 1990 Convention, the OPRC-HNS Protocol, 2000 and the IMO Manuals on Oil Pollution, Volume II and IV, provided by IMO and mailed to EPA prior to the Workshop were distributed to key-stake holders by EPA. The standard IMO Level 3 Model Course presentations, including slides and documentation, the IPIECA Report series and other useful information were also provided to the participants in electronic format at the end of the Workshop.

## 4. Participants

Approximately 52 participants from Ghana attended the Workshop, which was conducted by two external lecturers. The trainees came from governmental and local authorities and from the oil industry and local utility companies. In general all the participants could be involved in accidental marine or land pollution preparedness, response and co-operation. The consultants were informed by the representative of EPA that most of the participants represented a 'new' generation of people to be involved in national oil spill contingency planning. The List of Participants is attached as annex 1.

## 5. Lecturers

The two external lecturers covered the topics as listed. **Miss Gail Nxumalo** delivered the following technical presentations:

- Containment, Protection and Recovery of Oil, In Situ Burning, Bioremediation, Absorbents and Chemical treatment of oil spills.
- Shore line clean-up and waste handling

Mr. John Østergaard delivered the following technical presentations:

- Official opening
- Course Introduction
- Contingency Planning, Response Management and Organization
- Liability, Claims and Compensation
- Communications and Media relations

#### The current situation in Ghana

Presentations on the current situation in Ghana were provided as follows:

Mr. Kojo Agbenor-Efunam, Representative of Ghana EPA

- Presentation of the revised Ghana NOSCP
- Managing oily wastes from oil spills in Ghana
- National policy on approval and application of dispersants

Representative of Ghana Port and Harbour Authority

- Oil Spill Contingency Planning in Ghana ports and harbours

Mr. Thomas Willard, EH &S Manager, Tullow Oil Ghana Ltd

- The Jubilee Deepwater Development Project, Oil Spill Contingency Planning

Mr. Samuel Ofosu-Boateng, Technical Director, Volta, VRA Authority, (Electricity)

- Contingency planning and power generation in Ghana

#### 6. ourse Overview

#### **Course Programme**

The Workshop commenced on Monday, 16 November 2009 at 09:30 hrs and terminated on Thursday, 19 November 2009 at 16:00 hrs. In consultation with the Ghana EPA, the Workshop was designed and organized with one morning session from 09:00 hrs to 13:00 hrs and an afternoon session from 14:00 hrs to 16:00 hrs; 30 minute coffee/tea breaks were provided at 11:00 and 15:00 hrs.

#### **Opening of the National Workshop**

The Welcome Address was given by Mr. Jonathan A. Allotey, Executive Director, Ghana Environmental Protection Agency, Ministry of Environment, Science and Technology. The Welcome Address is attached as Annex 4. The IMO Opening Remarks were delivered by Mr. John Østergaard. The Opening remarks are attached as Annex 6. The Key Note Address was given by the Hon. Deputy Minister of Environment, Science and Technology, and delivered by Mr. J.A. Allotey, Executive Director, Ghana EPA. The Key Note Address is attached as Annex 5.

### 7. Course Lectures and Sessions

#### Introduction

The Introductory Session provided information on the administrative, practical and logistical arrangements for the course, as well as setting out the general objectives. It also provided a general introduction of the lecturers as well as the participants. It was emphasized that only by good co-operation and active participation by the delegates would it be possible to meet the objectives of the course. The draft programme for the course was also discussed.

#### IMO / IPIECA Video "Working together"

Due to technical problems (missing loud speakers) it was impossible to show this video.

#### **National Oil Spill Contingency Planning**

This session described the purpose and main types of national contingency plans, including the key components and main topics to be considered in the development of the Plan. The initial response actions and suggestion for a basic response organization and how this organization might be expanded in case of a major incident were described. The session also considered the characteristics of managing the incident during the initial or critical phase and described the factors that would be involved in commanding and controlling a response to an oil spill. The session then went on to look at issues to be considered when establishing a command centre and the main elements of logistic support. Matters to be considered in connection with response planning were also described as well as the factors relating to the provision for the needs of the response teams.

#### **Oil Spill Response Strategies**

The main topic during this session described the process of containing oil, either to prevent it from spreading to a particular area or to divert it to an area where it can be recovered. The principle types of containment boom and protection boom that would be required to achieve this were discussed as were their strengths and limitations. Recovery is the next step after containment and is often a major step in removing oil from the environment. Thus the different types of oil recovery equipment available including skimmers, vacuums, mechanical grabs and sorbents were discussed as well as a detailed analysis of the factors surrounding their choice. A discussion then followed on the use of both booms and skimmers in open seas as well as in coastal areas.

The session also considered the use of in-situ burning, bioremediation, and absorbents; their benefits and limitations. Factors to be considered when monitoring the effectiveness of a recovery operation were also described.

The session then went on to describe in detail, the basic principles of how dispersants work (chemical treatment of oil), the types of dispersant available and the various application methods used to apply the dispersants. Participants were also reminded of the need to obtain approval for dispersant use from the appropriate authorities before they can be applied and that many countries will only permit the use of dispersants that have passed toxicity tests relevant to the area in which they are to be used. To enable such process the need of a National Dispersant Use policy was emphasised.

The participants were then introduced to the benefits of dispersing oil by the use of chemical dispersants as a means to remove oil from the sea surface by dispersing it into the sea, as opposed to the disadvantages of leaving untreated oil in the environment. The likely environmental impacts of dispersant usage were also described and highlighted, using examples of dispersant applications at previous incidents around the world.

This session also looked at the various aspects of shoreline clean-up, from initial assessment through to termination. And how, any strategy chosen must take into account the environmental sensitivities of the likely area to be impacted. It provided general information on the behaviour and persistence of stranded oil and explained the three main steps of a shoreline clean-up operation; Stage One: the removal of bulk oil, Stage Two: the removal of stranded oil and Stage Three: the final 'polishing'.

The goals of a clean-up operation and the options for varying degrees of clean-up based upon an assessment of oiled shorelines were described. The session further described the general principles and techniques for clean-up depending on the type of shoreline, including the environmental effects of various clean-up techniques. The participants were reminded that the methods employed should not cause more damage to the environment than necessary and making this choice requires an appreciation of the effects different methods will have on the various types of shoreline. It discussed the different factors to consider when developing a shoreline clean-up plan and introduced the criteria for terminating shoreline clean-up operations.

#### **Media Relations**

This session provided information on the needs of the media (newspapers, radio and television) and factors involved in successfully handling of the media. The media is becoming increasingly sophisticated and therefore information can be spread worldwide rapidly. This can have a significant impact on the reputation of the organizations involved in an oil spill. It is imperative to ensure that all media enquiries are handled efficiently. The importance of the media as a public information tool was also discussed. Guidelines for a successful media interview and recommendations on how to conduct a one-on-one interview were provided.

#### **Compensation of oil spill incidents**

This session provided the background for the international liability and compensation regimes for oil spills from tankers: the Civil Liability, the Fund Conventions and the Supplementary Fund (CLC 92, FUND 92 and Fund Protocols of 2000 and 2003). It presented a broad spectrum of the damages that can be compensated through this regime and described the role of the Protection and Indemnity (P & I) Clubs and the IOPC Fund. Examples were included explaining the factors affecting the admissibility of clean-up claims based on past spill case studies. Finally an introduction on the claim handling procedure was given with some recommendations on how to submit a claim.

#### Presentation of the National Oil Spill Response Plan - From Planning to Practice

The representative of EPA gave a 'walk through' of the revised National Oil Spill Contingency Plan with emphasis on new text and amendments. Unfortunately, the latest revision had just been finalized and none of the participants had had the opportunity to study the Plan prior to the Workshop. However, as the revised plan would be scrutinized during group work over the coming two days there would be many opportunities to comment on the Plan in detail.

#### The current situation in Ghana

A number of presentations were given during this session as follows:

#### **Ghana Harbours & Port Authority**

A representative of Ghana Harbours & Port Authority provided a presentation on oil spill contingency planning in place for ports and harbours. It was noted that the major ports of Ghana have in place a well developed oil spill contingency that regularly is tested during exercises.

#### **Volta Electricity Authority**

A representative of the National Electricity Authority provided a presentation of the oil spill response capacity in place to protect all power generating plants of Ghana.. The contingency covers all plants that are using sea water for cooling purposes as well as all power plants with cooling water intake from inland waterways. Finally, contingency planning in connection with the big hydro-electric power generation plant at the lower end of Lake Volta was explained.

#### The Jubilee Deepwater Development Project - Oil Spill Contingency Planning

The Health, Safety & Environment Manager of the Jubilee Deepwater Development Project provided the following information: The Jubilee Deepwater oil field was discovered a few years ago and is now in the process of being developed for production. It is estimated that the oil will begin to flow from the field during the last quarter of 2010. In this connection the development of the field protection of the marine environment, including oil spill contingency planning has been given a high priority. The Operating Company (Tullow Oil Ghana Ltd.) has

developed an oil spill contingency plan and is in the process of developing its response capacity. So far more than 100 people have received basic and advance training in oil spill response. The full response capacity is expected to be in place in early 2010, when production drilling is expected to be initiated.

#### Presentation of Draft Dispersant Policy/Guidelines and Waste Management Guidelines

Based on Dispersant Policy/Guidelines and Waste Management Guidelines developed in other parts of the world, the representative of EPA had developed a set of draft Guidelines for further consideration by the Workshop during Group Work to be implemented during the last two days. It was noted that, at present, the NOSCP does not consider these two issues and this is why the initiative was considered timely and appropriate.

#### Presentation of the Abidjan Convention and draft Regional Oil Spill Contingency Plan

Unfortunately, the representative of the Abidjan Convention Secretariat was unable to attend and therefore, this presentation was omitted from the Workshop.

#### Oil industry response co-operative for offshore and onshore response

#### **Review of operational aspects of Ghana NOSCP**

The presentation was considered as an introduction to the Group Work to be initiated later during the Workshop. With the background of the revised NOSCP, the presentation focused on operational matters like; alerting and notification procedures, assessment of the incident, mobilization of response teams and resources, organization on spill site(s) and National organization in charge of incident management

#### **Table Top Exercise**

The external consultants had prepared a small table Top exercise with focus on alarm and mobilization procedures and the initial role of key players during the first critical hours of a significant (Tier 2) oil spill incident. The participants were divided into four groups so that they could all considered the same issues. The table top exercise was well received. It created a lot of good discussions and worked very well as an 'appetizer' for the Group Work to come.

#### **Group Work**

In order to review the latest edition of the Ghana NOSCP, the EPA initiated major Group Work that was to be implemented during the Wednesday afternoon and Thursday morning sessions. Four groups were established and tasked with the following:

- Group 1: Review of the NOSCP with appendices 3 to 10.
- Group 2: Review of Appendices 1 and 2.
- Group 3: Review of draft Dispersant Policy / Guidelines.
- Group 4: Review of draft Guidelines on Waste Management

In the Plenary session that took place on Thursday from 11:30 to 15:15, Groups 1 and 2 managed to present there main findings. However, due to time constrains there was insufficient time to go into any detail. Groups 3 and 4 did not manage to present their findings.

From the Penary session it became clear that there are still a number of issues that require further consideration. Not only were a number of editorial issues identified, but also recent changes within the

Government and different stake holders of the Plan makes it necessary to initiate a critical review of the entire Plan.

In conclusion it was agreed that EPA shall produce a new revised edition of the Plan, which includes all the corrections that were identified during the Group Work. When the revised Plan is ready, EPA is recommended to establish a group of Key Players to be tasked with a comprehensive review of the new revised Plan. The outcome of this work should be submitted to all stake holders for consideration and - if possible - approval.

Only by comprehensive work, where more than one authority is involved, it would be possible to develop the NOSCP further.

## 8. Closing Ceremony

Mr Kojo Agbenor-Efunam, Ghana EPA, acted as chairman during the closing ceremony. He thanked the participants for their active participation in the Workshop. He mentioned, the outcome of the four working groups will be considered by EPA.

- All suggestions for amendments and corrections to the NOSCP, the Policy paper on Use of Dispersants and the Guidelines on Waste Management will be included, as appropriate.
- An up-dated version of the three documents will be submitted to all stakeholders as soon as possible.
- EPA will further consider establishing a core group of the most important key players of the NOSCP in order to further scrutinize/improve the Plan.

When this work has been finalized, EPA will consider a new Workshop to present and further discuss the revised NOSCP in order to achieve full national acceptance of the Plan. The revised Plan will be submitted to all stakeholders well in advance of the proposed new Workshop. Finally, Mr. Kojo Agbenor-Efunam appreciated the assistance provided by IMO and IPIECA and thanked the external Consultants for their support.

Mr Kojo Agbenor-Efunam then invited the Consultant to provide a short closing statement. On behalf of IMO and IPIECA, the Consultant thanked the Government of Ghana and in particular, the EPA for organizing a successful Workshop. He appreciated the active participation of the delegates, the guest speakers from Governmental agencies and the oil industry. He thanks the EPA for the the logistic support provided, and Tullow Oil Company for their support. He wished them all, good luck with the work ahead in relation to the finalization and implementation of the NOSCP.

The Workshop Certificate and a USB stick containing all Workshop materials and documentation was then distributed to all participants. The Certificates were signed by Mr Jonathan A. Allotey, Executive Director, Ghana Environmental Protection Agency and the Director of the Marine Environment Division of IMO.

## 9. Course Review and Evaluation

The IMO Evaluation Questionnaire was handed out to the participants at noon on Wednesday. Based on the returned Evaluation Questionnaire, the following general comments can be made:

- 36 Participants out of 52 returned the Questionnaire of which six only returned Part I. Several of the returned questionnaires were incomplete.
- Part I of the Questionnaire should be compared with the List of Participants (see annex 1) for detailed personal information.

The length of the Workshop was in general considered "just right".

- The organization of the Workshop, the facilities, the equipment used and the venue for the Workshop were considered satisfactory to excellent.
- The content of the presentations, the clarity, the technicality and comprehensiveness were considered satisfactory to excellent. Several participants complained about missing documentation (Students Manual) during the presentations.
- The use of Audio Visual equipment, IMO references, bibliographies, text books and group activities were considered "just right" to "more use of".
- The presentations and performance of the two external lecturers were considered satisfactory to excellent. In general, the performances of the two lecturers were considered to be good to excellent.
- All lessons were considered of interest. A few would be interested in more information on: the use of response equipment and strategies, Laws and Conventions, and more use of videos and exercises. A few of the participants had no previous experiences in oil spill preparedness, response and co-operation. The interest in the various subjects touched upon during the Workshop varied from participant to participant subject to their daily work and areas of responsibilities. In general, most participants were satisfied with the content of the Workshop.
- A few suggested including topics like response to land-based spills, Waste management and claims and compensation. A few wished to include more "hands-on-training" in the course.
- Only little information was provided prior to the Workshop. Several considered it useful, if detailed information could be distributed prior to the Workshop.
- The second half of the Workshop including substantial Group Work on the review of the NOSCP and two background documents on a National dispersant policy and Guidelines on Waste Handling was considered very useful. However, several participants found that the documents should have been distributed well in advance of the Workshop in order to facilitate the discussions during the Workshop.

There was general agreement that all expectations to the Workshop were fulfilled.

There was general agreement that the Workshop met its objectives.

- It was suggested to include in future courses such topics as: Regional Co-operation, more information on national oil spill contingency planning, prevention of oil spills, safety aspects, live spill exercises and practical on-hand equipment training.
- A substantial majority wanted to see more IMO assistance and made suggestions on issues to be included in such assistance.

A number of individual comments, which do not fit into the general conclusions were given as follows:

- Course Bags should have been distributed.
- More time for review of the NOSCP.
- Course materials should have been distributed prior to the Workshop (several commented on this).
- The accent of the external lectures made it from time to time difficult to understand what was being said.
- Too many "technical terms " were used.
- More use of videos on live oil spills.
- The needs of participants from far away places should be accommodated (hotel, etc.).
- Guidelines on minimum requirements under Tier 1, 2 and 3.
- Due to decorative pillars in the room it was difficult to see the screen.
- Participants without previous knowledge on oil spill response had difficulties in following the technical discussions. Special attention should be given to training of "Laymen".

# **10. Conclusions**

The Workshop has helped the participants from a wide range of authorities and private entities within Ghana to obtain a better understanding on issues to be considered in connection with national oil spill preparedness, response and co-operation.

The facilities and the support provided by the national organizers were excellent and the facilities are recommended as the venue for any future regional or national training activities organized in co-operation between Ghana and IMO/IPIECA. The reduced OPRC Level 3 model course during the first half of the Workshop was conducted by two external lecturers; this gave a broad range of experience available to the participants. During the second part of the Workshop the external lectures acted as resource persons and facilitated thus the work of the established working groups.

The Workshop was conducted in the English language, also the official language of Ghana. The extensive use of illustrations, videos and animations were very much appreciated. Unfortunately, some of the audio visual equipment provided, did not perform satisfactory and made it impossible to show videos as a part of the presentations.

The documentation provided on a USB stick by the end of the Workshop was well received, but several participants found that documentations such as a "student's manual" should be made available to all from the beginning of the Workshop. The NOSCP for Ghana was officially adopted almost ten years ago. Due to resent discovery of the major Jubilee oilfield offshore Ghana, substantial amendments to the plan have been initiated but not yet included in the plan. The present Workshop should be seen as a part of the ongoing revision of the National Plan. The Workshop recommended Ghana EPA to include all major stakeholders in the revision work and to consult with all stakeholders before the revise Plan is finally adopted.

The Workshop further requested the Consultants to recommend IMO and IPIECA to continue its support for the revision and implementation of the NOSCP for Ghana.

## **11. Recommendations**

It is recommended that Ghana Environmental Protection Agency:

- As soon as possible, amend the present NOSCP with the corrections and amendments identified during the present Workshop and distribute the revised Plan to all Stakeholders for consideration.
- Under the Chairmanship of EPA, establishes a core Group of Key Stakeholders to be tasked with a comprehensive review of the NOSCP.
- Upon completion of this work circulate the revised plan to all Stakeholders well in advance of a National Workshop to consider and approve the revised NOSCP.
- When appropriate during the reviewing process consider a formal invitation to IMO and IPIECA to provide additional assistance for the finalization and implementation of the NOSCP for Ghana.

It is further recommended that IMO and IPIECA continue to support the further development, up-dating and implementation of the NOSCP for Ghana.

# Annex 1. List of Participants National Workshop on Oil Pollution Preparedness Response and Cooperation

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	Adjei			
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50.	Ebenezer Asante	GNAF/MOFA	<ebenaste@yahoo.com></ebenaste@yahoo.com>	0277170623
51.	Larsey Mensah	EPA	<larseym@yahoo.com></larseym@yahoo.com>	021662465
52.	S.A. Opoku Kiana	Soil Services Ltd.	opoku kiana@hotmail.com	0244718690

# Annex 2. List of acronyms used in the report

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UNEP United Nations Environment Programme.	P & I Clubs	Protection and Indemnity Associations.
	UNEP	United Nations Environment Programme.

# Annex 3. Final Programme

#### The Global Initiative

The Global Initiative for West and Central Africa (GI WACAF) is a partnership between the International Maritime Organisation (IMO) and the International Petroleum Industry Environment Conservation Association (IPIECA) to enhance the capacity of countries to prepare for and respond to marine oil spills.

A key innovative feature is emphasis on the promotion of public/private partnership for effective oil spill response making use of existing industry expertise and resources.

#### The GI-WACAF Project

This is a four year program jointly funded by the International Maritime Organization (IMO) and eight Oil Companies members (BP, Chevron, ENI, ExxonMobil, Marathon, PERENCO, Shell and Total) through the International Petroleum Environment Conservation Association (IPIECA).

#### Mission

To strengthen the national oil spill response capability in 21 West and Central Africa through the establishment of local partnership between the national authorities in charge of oil spill preparedness and response at national level and the oil industry.

#### Scope of GI WACAF

The project area covers 21 West and Central African countries (See maps). The scope is to organise workshops, training, seminars and deployment exercises with national authorities in charge of oil spill response, in partnership with local business units.

#### Objectives

The GI WACAF is based on an effective management system, establishing six goals of preparedness and key performance indicators to enhance the capacity of countries to prepare for and respond to marine oil spills. These goals cover the requirements of the OPRC 90 convention:

Goal 1: Legislation: promote the ratification of the relevant international Convention

Goal 2: Contingency plan: have contingency plans for all the countries of the region

Goal 3: Designation of authority: get clarity in roles and responsibilities for oil spill response

- Goal 4: Regional agreement: promote exchange and mutual assistance for oil spill response
- Goal 5: Training: ensure that training and exercise are developed in each country on a regular basis

Goal 6: National capabilities: support countries in developing their own national response system

#### **Workshop Objectives**

- Deliver an OPRC level 3 training course
- Promote ratification of the OPRC 90 Convention
- Review the national oil spill contingency plan
- Provide information on the industry co-operative development in Ghana

#### PROGRAMME FOR WORKSHOP OF 16-19 SEPTEMBER 2009

09:00	Welcoming of participants / Registration	
09:30 -	Opening ceremony	National authorities –
10:00		IMO - IPIECA
10:00 -10:15	Coffee Break	
10:15 –	Presentation of the workshop and its objectives	IMO
10:45		
10:45 –	Video: Working together	Consultants
11:15		Consultants
11:15 –	National oil spill contingency planning: Importance and issues	Consultants
12:15	(including media and compensation issues)	Consultants
12:15 –	Lunch	
13:30		
13:30 –	Oil Spill Response Strategies: An overview of oil spill response	Consultants
14:30	strategies.	
14:30 –	Media relations: Issues related to media attention to oil spill	Consultants
15:30	incidents. National organization for addressing media	Consultants
15:30	Coffee	
15:30 –	Compensation of oil spill incidents: CLC and Fund 1992	Consultants
16:30	conventions. Practical aspects and national organization for	
	addressing related issues.	

#### MONDAY 16 NOVEMBER 2009: OPENING CEREMONY. OPRC LEVEL 3 TRAINING

#### TUESDAY 17 NOVEMBER 2009: OPRC LEVEL 3 TRAINING

National arrangements: Ghana NOSCP and cooperation with the oil industry				
09:30 –	Presentation of the National Oil Spill Response – From Planning	EPA		
10:00	to Practice			
10:00 -	Oil industry: oil spill response cooperative for offshore and	Industry- VRA, GPHA &		
11:00	onshore response	Tullow Oil (Ghana) Ltd		
11:00 –	Coffee Break			
11:30				
11:30 –	Presentation of the Draft Revised National Oil Spill Contingency	EPA		
12:30	Plan of Ghana (NOSCP), Draft Dispersant Policy/Guidelines and			
	Waste Management Guidelines			
12 :30 -	Lunch			
14:00				
14:00 -	Table Top Exercise (with coffee )	Consultants		
16:00				

#### WEDNESDAY 18 NOVEMBER 2009: REGIONAL COOPERATION. REVIEW OF NOSCP

09:30 -	Presentation of the Abidjan Convention and draft Regional Oil	Dr. Jacques Abe
10:30	Spill Contingency Plan Oil industry: oil spill response cooperative	GCLME/IGCC
	for offshore and onshore response	
Review of op	erational aspects of Ghana NOSCP	
10:30 -	Alerting procedure	Short presentations by
11:00	Assessment of the incident	consultants, followed by
	Mobilization of the National Emergency Response Team	discussions

	Mobilization of oil spill response resources	
	Organization on site of incident	
	National organization in charge of incident management	
11:00 –	Coffee	
11:30		
Review of Draft Dispersant Policy/Guidelines and other aspects of NOSCP		
11:30 –	Group Formation and presentation of Group task	EPA
11:45		
11:45 –	Group Work	
16:00		

#### THURSDAY 19 NOVEMBER 2009: PRESENTATIONS OF GROUP WORKS. ACTION PLAN

09:00 -	Group Works	ALL
10:30		
10:30 - 11:	Coffee Break	
00		
11:00 –	Presentation of Group Works and Discussions	ALL
13:00		
13:00 –	Lunch	
14:00		
14:00 -	Comments on suggested improvement of the NOSCP and	Discussions facilitated by
	Comments on suggested improvement of the NOSCP and drawing an Action plan for their implementation	Discussions facilitated by consultants
14:00 -	drawing an Action plan for their implementation	

# Annex 4. Welcome Address by the Executive Director of The Environmental Protection Agency

Distinguished Ladies and Gentlemen,

The marine and coastal environment constitutes one of the most threatened environments in Ghana today due to population pressure, industrial activities and natural processes. Pollution prevention measures from shipping and industrial activities have over the years received some attention form both government and development partners.

The international Maritime Organization (IMO) over the years, assisted in the development of conventions, guidelines and capacity building to prevent reduce or respond to emergencies.

Ghana has benefited form IMO technical assistance since 1986 to develop capacity in oil spill contingency planning and the development of an oil spill sensitivity mapping.

The purpose of a national oil spill contingency plan is to delineate responsibilities for operational response to incidents which could or do result in spillage of oil into the marine and inland waterways of the country.

The main objectives of Ghana's National Oil Spill Contingency Plan is to:

- 1. Identify high-risk areas to oil pollution (Sensitivity Mapping)
- 2. Develop appropriate systems for the rapid detection and reporting of spillage of oil.
- 3. Ensure prompt response to prevent pollution and or restrict the spread of the contaminants.

4. Ensure that adequate protection is provided for public health and welfare and the marine and inland environment.

5. Ensure that appropriate response techniques are used to clean up the pollutant and disposal of recovered material is carried out in an environmentally acceptable manner.

6. Ensure that complete and up-to-date records are maintained of all expenditures to facilitate cost recovery.

7. Ensure that personnel and equipment are in state of readiness

Recent developments including the discovery of oil and gas in commercial quantities in the marine waters of the country and the West African sub-region and the continent at large, call for immediate steps to review the Oil Spill Plan developed for the country. Also, in order to realize the objective of the national oil spill plan, there is the need to build capacity, thus the holding of this training workshop for relevant stakeholders to build capacity manages an incident that in the event it occurs.

I would like to take this opportunity to welcome our resource persons to Ghana and wish them successful stay in the country and a fruitful workshop.

It is my hope that this workshop will equip all stakeholders with the capacity to manage oil spill events in the country.

I wish you a successful workshop.

Thank you.

# Annex 5. Keynote address by the hon. Deputy minister of environment, science and technology

(Delivered by Mr. J.A. Allotey, Executive Director, Ghana EPA) Mr. Chairman, Representatives of IMO, Resource Persons,

#### Distinguished Ladies and Gentlemen,

The Gulf of Guinea is becoming an important area for petroleum exploration and production activities. The density of marine traffic, especially oil tankers, in close proximity to the coast has also increased accordingly. These developments present a fairly high risk of marine pollution from blowouts, collisions, stranding and other marine accidents.

Such pollution can threaten amenity beaches, the tourist industry, sea birds, marine life in the inter-tidal zones, coastal installations and fisheries with subsequent loss of revenue and livelihoods.

Furthermore, even a small oil spill on the inland waterways, such as the Lake Volta or its tributaries, or leakage from oil pipelines may cause serious threat to wildlife, the local fishing and water supplies.

The Diplomatic Conference on Oil Pollution Preparedness and Response (OPPR Conference) held at IMO, London, in November 1990, adopted the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC 1990) and ten Resolutions. OPRC 1990 is the first globally applicable legal instrument addressing the problem of responding to accidental oil pollution of the sea, and in Articles 6 and 10 it specifically mentions the establishment of national and regional systems for preparedness and response and the promotion of bilateral and multilateral co-operation in preparedness and response. Articles 3 and 4 deal with plans for offshore units and ports and oil handling facilities and with reports from such units and facilities.

The "Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region" (Abidjan Convention) and its related Protocol concerning Co-operation in Combating Marine Pollution in Cases of Emergency (Emergency Protocol) provide the legal/institutional framework for actions concerning regional co-operation in combating accidental marine pollution. By ratifying the Convention and its related Protocol, the Contracting Parties legally committed themselves and firmly expressed their political will to initiate, both individually and jointly, the actions required in order to respond effectively to accidental marine pollution.

Under the Emergency Protocol, the Contracting Parties have certain obligations which primarily concern the development of their national contingency plans and pollution response capabilities; the distribution of information to the other Parties regarding their national organization and their competent national authorities, informing the other Parties of all pollution incidents, their subsequent development and the actions taken; and the provision of assistance to a Party which so requests.

Ghana, as a signatory to the Oil Spill Response and Oil Pollution Preparedness Response and Cooperation (OPRC) Convention and a party to the Abidjan Convention is obliged to undertake a number of activities. These include putting in place a number of measures.

- 1. An effective oil spill contingency plan;
- 2. Cooperate to provide assistance to other parties to the convention in case of oil spill accidents;
- 3. Ensure that oil pollution incidents are reported to the competent authorities and the International Maritime Organisation as appropriate;
- 4. Develop national preparedness capability to deal with oil spill incidents.

The Ministry has therefore through the EPA made several attempts to meet its obligations under the conventions and treaties that the Government of Ghana has signed.

I would like to acknowledge the support of the International Maritime Organization (IMO) in this direction. Over the years the IMO has been very supportive in the development of conventions, guidelines and capacity building to prevent, reduce or respond to emergencies. As a country we have benefited from such assistance to develop capacity in oil spill contingency planning and the development of coastal sensitivity mapping. Thus under auspices of the IMO Ghana developed its National Oil Spill Contingency Plan in the later part of the 1980s and Environmental Sensitivity Map for the Coastal Area of Ghana in digital format with the financial assistance from the Fund for Danish Consultancy Services administered by, United Nations Operations Services (UNOPS).

The National Oil Spill Contingency Plan recognizes training as an important part of any contingency planning and recommends that such education and training programme should be based on the IMO Model Training Courses, which have been developed by the OPRC Working Group under the Marine Environment Protection Committee.

In the implementation of the NOSCP, the EPA is assigned the responsibility of developing and co-ordinating the training necessary to implement successful regional or national oil spill response.

The NOSCP also enjoins the EPA to plan and execute a number of exercises to test the readiness of personnel and equipment for oil spill response. The NOSCP also enjoins oil facility owners to have their own contingency plans and test them. Further, the NOSCP enjoins stakeholders to periodically review the contingency plans, taking into account changes in the risk profile and gaps identified during exercises.

It is in accordance with these responsibilities that EPA, in collaboration with the IMO/IPIECA and the Ghana Maritime Authority, has organized this one week workshop for you our dear stakeholders.

With the support of IMO/IPIECA resource persons from industry and research you would be taken through the OPRC Level 3 course to prepare you adequately for future assignments in the protection of our marine and coastal environment. During this period of training you would also be expected to review the NOSCP taking into account the national and international developments.

As a nation, we also need to move from planning to practice. The EPA, which is the national coordinating body for the implementation of the NOSCP does not command any dedicated equipment for combating oil spill at the moment. It is therefore reasonable for the EPA and industry to join hands to see how best the nation and the industry can collaborate to ensure that equipment are available for adequate response in times of emergencies. This calls for entering into mutual agreements on equipment acquisition, use and maintenance between the EPA and the industry. The EPA and the industry were able to conduct some exercises in the past using the minimal equipment available at the time. The time has even come for these past relationships to be strengthened further so as to elevate our state of preparedness.

Whilst we appreciate the immense support of IMO/IPIECA in building national capacity for dealing with oil spill, we wish to appeal to IMO/IPIECA to further assist the country, through its technical cooperation arrangements, to develop capacity also in preparedness, response and co-operation to pollution incidents by hazardous and noxious substances (i.e. ratification and implementation of the OPRC-HNS 2000 Convention and its Protocol).

As the nation prepares to see first oil production from the Jubilee Field fourth quarter 2010, this week's workshop could not have come at an opportune time. It is therefore my hope that the workshop and the subsequent ones would help the country to be in a state of readiness to meet any challenge in the event of pollution incidents by oil, hazardous and noxious substances.

I wish you a fruitful discussion.

Thank you.

# Annex 6. IMO Opening Remarks

Thank you.

Mr. Jonathan A. Allotey, Executive Director, Ghana Environmental Protection Agency.

Ladies and Gentlemen.

Thank you for your warm words of welcome here to Accra, the Capital of Ghana. From a personal point of view, I am pleased to be in Accra again, if my memories serves me right it must be the seventh or eight time I visited your beautiful Country. Last time was some four years ago. I am looking forward to see the new developments that have taken place since I was here last time.

Secondly, I deem it a great honour to be here this morning to deliver some Opening Remarks on behalf of His Excellency Mr. E. MITROPOULOS, the Secretary-General of the International Maritime Organization. The Secretary-General sends you his best regards and wishes for a fruitful event.

I would like to welcome you all to this National Training Course and review of your National Oil Spill Response System.

On behalf of IMO I wish to extend my appreciation to the Government of Ghana for hosting this course, and in particular to the Ghanaian Environmental Protection Agency for its efforts and the assistance provided in connection with all the local planning, arrangements and the logistics for this important event. Without your valuable support and hard work, it had never been possible to organize this Course.

The co-operation between IMO and the oil industry under the headline of the IMO/Industry Global Initiative has matured during almost fifteen years of close partnership. One of the activities within this partnership is the Global Initiative for West and Central African Countries, which provides the framework for the present Workshop.

I am also pleased to welcome Miss Gail from Oil Spill Response Limited in Southampton. I know Miss Gail is familiar to many of you as she has been working for her company here in Ghana in connection with the offshore activities and Miss Gail was also together with me last time in Ghana. During this course Miss Gail is representing the GI for WACAF and the International Petroleum Industry Environmental Conservation Association or IPIECA, as we use to call it.

#### Ladies and Gentlemen,

The development of the National Oil Spill Contingency Plan for Ghana is not a new issue as national oil spill contingency planning has been under consideration for more than 15 years, and according to my knowledge the first National Plan was developed and adopted as early as in 1996. Since then your National Oil Spill Contingency Plan has been revised and amended several times in order to reflect the national developments within this field.

IMO knows from experiences that keeping a national contingency plan up-to-date process is a complex process, as the Plan has to be under constant scrutiny. The National Plan is a living document that is in constant need of adjustments and amendments in order to be in compliance with national and international developments.

As far as I am aware, the Ghanaian National Oil Spill Contingency Plan has its background in appropriate and necessary national legislation, which provides for the necessary legal powers to the National Responsible Authority to make it possible for Ghana to be well prepared in the case a big oil pollution should happened in your waters of interest.

Your national legislation provides also the legal background for the implementation of a number of International Conventions related to oil spill preparedness, response and co-operation. Some of the most important of these conventions are the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990, or the OPRC 1990, the convention on Civil Liability in cases of oil spills from tankers, 1992 and the International Convention for the establishing of an oil pollution Compensation Fund, also from 1992.

I am pleased to note that Ghana is Party to these important International Conventions. IMO is aware that the traffic with loaded oil tankers in and out of your ports is increasing but still relatively small compared too many other West African States. With the discovery of rich oilfields offshore the coast of Ghana, a new threat of oil spills has appeared. In addition to this, Ghana is constantly faced with the threat of a major oil spill from one of the many tankers that are navigating past your coast on their way to and from Europe and North America. A collision or a serious accident involving one of these big tankers could have serious consequences to your environment and the livelihood of many of your people living close to or working on the sea as fishermen or sailors.

Ghana is Party to the Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central Africa and its Protocol concerning Co-operation in combating Pollution in Cases of Emergency – the WACAF or Abidjan Convention.

Both the international OPRC Convention and the Regional Abidjan Convention requires that Gambia has in place a National Oil Spill Contingency Plan.

In IMO we hope that the present Course will assist you in maintaining and effective implementation of a modern and up-to-date National Plan and the associated necessary national legislation.

Experiences gained during major oil spills around the world have again and again demonstrated the need for careful planning on action to be taken, if a major oil spill should occur. Similar experiences have demonstrated that it is impossible to respond effectively and cost beneficially to a major oil spill without prior comprehensive planning.

A second purpose of having this national training is to facilitate national capacity building in Ghana. Only by continuous education and training of the personnel directly involved in national and regional contingency planning will it be possible to ensure a sustainable future for all the contingency planning work you have done already.

And only by securing the necessary continuous support for the full implementation of the National Plan, will it be possible to ensure that Ghana is fully prepared to respond to a severe oil spill incident the day it happens.

This National training course will focus on the maintaining and improving of your National Plan. It is our hope, that on Friday, when you return to your daily work and responsibilities, we will have agreed to an Action Plan that will ensure that your National Oil Spill Contingency Plan will continue to be maintained and up-dated as appropriate, and that you all will be keen to take active part in this process.

Ladies and Gentlemen,

Once again, on behalf of IMO welcome to this National Course and my best wishes for a fruitful outcome.

Thank you.