

# **EPPR Working Group Meeting**

Final Report

November 9 – 10, 2010

Arlington, VA

United States

## Contents

<b>1. Host Country Welcome and Opening Remarks</b> .....	2
<b>2. EPPR Work Group Convenes</b> .....	2
2.1 Opening of Meeting.....	2
2.2 Introductions .....	2
2.3 Approval of Agenda .....	2
<b>3. Update on Arctic Council Activities</b> .....	2
<b>4. Update on the work within IMO on the Polar Code and results of the meeting with the oil industry</b> .....	2
<b>5. Preparation of deliverables to the 2011 Arctic Council Ministerial</b> .....	3
5.1 Review of the second draft of BoHaSa.....	3
5.2 Review of the revised Analysis of Agreements (Gap Analysis) .....	4
5.3 Review of the revised Environmental Risk Analysis and Matrices and next steps .....	5
<b>6. Preparation of deliverables to the 2011 Arctic Council Ministerial Continued</b> .....	5
6.1. Reports on radiological projects: Report - Source Control Phase 4 and A Ten-Year Summary of Prevention Projects.....	5
<b>7. EPPR Project Priorities – Outcomes from the Analysis of the Recommendations in Opening of the Arctic Seas: Envisioning Disasters and Framing Solutions (Arctic Summit Report)</b> .....	6
<b>8. Recent Groundings in the Canadian Arctic</b> .....	6
<b>9. Environmental Studies Research Funds</b> .....	8
<b>10. Current Projects</b> .....	8
10.1. Search and Rescue Pilot Project.....	8
10.2. Arctic Region Oil Spill Response Resource and Logistic Guide .....	9
10.4. Update from the Protection of the Arctic Marine Environment Work Group .....	10
10.5. Arctic Ocean Review -- Collaboration with PAME .....	10
<b>11. Arctic challenges from a Danish perspective</b> .....	10
<b>12. Day one wrap up, review of decisions, and adjournment of meeting</b> .....	11
<b>14. Record of Decisions taken on Day 1</b> .....	11
<b>15. New Project Proposals</b> .....	11
15.1. Radiological emergency proposals- follow up on training proposals introduced in November 2009: International Radiological Assistance Program Training for Emergency Response (I-RAPTER) and International Medical Management of Radiation Emergencies (I-Medical).....	11
15.2. New Project Concept Discussion: Arctic Response Cooperation MOU .....	12
<b>16 Country Updates</b> .....	12
16.1. Canada .....	12
16.2. Norway .....	13
16.3. Russia.....	13
16.4 United States .....	14
16.5 Finland.....	14
16.6 Sweden.....	14
<b>17. Oil Budgets: Setting the Context and aligning perceptions</b> .....	15
<b>18. Conclusion of EPPR Meeting</b> .....	15
Annex 1: Timed Agenda.....	16
Annex 2: Record of Decisions .....	20
Annex 3: EPPR Project Priorities- .....	22
Annex 4: Minutes of Oil and gas industry and EPPR meeting .....	26
List of participants .....	28
Annex 5: List of Meeting Participants .....	29

## **1. Host Country Welcome and Opening Remarks**

The second meeting in 2010 of the EPPR working Group was hosted by the United States in Arlington, Virginia. Ms. Ann Heinrich, EPPR Chair, opened the meeting and thanked the Igor Veselov, head of the Russian Federation delegation, for the hospitality accorded to the EPPR work group at the last meeting in Vorkuta.

## **2. EPPR Work Group Convenes**

Meeting participants received copies of EPPR meeting materials.

### *2.1 Opening of Meeting*

Ms. Ann Heinrich convened the meeting by welcoming everyone and thanking all for their participation.

### *2.2 Introductions*

Delegation members from Canada, Denmark, Finland, Norway, the Russian Federation, the United States, Permanent Participants, and Observers introduced themselves to the group. CDR Jimmy Skelmosé is the newest Head of Delegation representing Denmark. Please see Annex five for a list of participants.

### *2.3 Approval of Agenda*

The EPPR Chair requested some amendments to the Agenda of the meeting to accommodate availability of speakers. The meeting participants accepted the amended Agenda. Please see Annex one for the timed agenda.

## **3. Update on Arctic Council Activities**

The EPPR Chair provided an update on the recent activities of the EPPR WG and of the Arctic Council. Ms. Heinrich represented EPPR at Arctic Council Senior Arctic Officials meeting held October 19-20, 2010 in the Faroe Islands. Mr. Ole Bjerkemo of Norway briefed the SAOs on the BoHaSa, Mr. Igor Veselov of Russia briefed on an exercise in Franz Josef Land related to SAR, and Ms. Ann Heinrich briefed on the NERPA exercise.

The Chair highlighted items discussed at the meeting most relevant to EPPR to include the findings of the Arctic Council Contact Group on Communication and Outreach to "develop guidelines for engagement in outreach activities and an Arctic Council communication and outreach plan based on common priorities."

*Conclusions: The Chair stated that there were many questions that still remained regarding wider discussions on strengthening the Arctic Council. How the work of the council will be taken further is an issue that is raised with participation in events like COP 15. The SAOs are working on complex issues and the Chair and Secretariat will keep the group posted on future news and information. EPPR will need to consider the Communication and Outreach Guidelines when creating communications and outreach plans for future projects.*

## **4. Update on the work within IMO on the Polar Code and results of the meeting with the oil industry**

Mr. Ole Bjerkemo (Norway), the EPPR Vice-Chair, presented information on the Polar Code as a follow up to the discussion held at the meeting in Vorkuta in June 2010. Currently Norway is

leading the IMO Correspondence Group to develop a “Code for Ships operating in Polar Waters.” He mentioned that all eight Arctic nations are represented in the Correspondence Group. Mr. Bjerkemo noted that the Correspondence Group delivered a report with provisional text to describe the goals of the Code and groupings of conditions to which additional safety and environmental hazards under the Code would apply.

There was a brief discussion on whether the code would apply to fixed or floating facilities such as mobile offshore drilling units en route to a permanent location. Because IMO addresses SOLAS Ships and cargo vessels it was mentioned that oil exploration vessels were classified by ship classification societies.

Mr. Bjerkemo added that the meeting with industry, held the previous day, was useful to see what projects were being proposed under the Joint Industry Program. Please see Annex 4 for the meeting minutes from EPPR’s meeting with oil industry representatives.

*Conclusion: The group welcomed Mr. Bjerkemo’s comments and future updates on the Polar Code.*

## **5. Preparation of deliverables to the 2011 Arctic Council Ministerial**

### *5.1 Review of the second draft of BoHaSa*

Mr. Bjerkemo provided a presentation on the revisions to the Behaviour of Oil and Hazardous Substances on Arctic Waters (BoHaSa) report. SAOs welcomed the progress during the last SAO meeting noting the reports’ relevance in the aftermath of the Gulf of Mexico oil spill. The draft recommendations should be reviewed by SAOs in March for transmittal to Ministers.

EPPR considered the BoHaSa report's draft recommendations the BoHaSa report’s conclusions. There were several different and opposing viewpoints regarding Conclusion 3, 6, and 7 (Arctic conditions aiding in response; in-situ burning as a proven response in ice; and use of dispersants). It was noted that conclusion three painted an unrealistic picture of the conditions under which oil spill response in the Arctic would occur. The group engaged in a lengthy discussion on hampering factors such as season, weather, and light conditions; mention was made of the change of phase that occurs during the spring which adds to difficulty. It was suggested that revised statements could acknowledge the variable conditions in the Arctic that leave several response options open and that the executive summary mention this issue. Members agreed to form a correspondence group to conduct final review and specific text for the BoHASA report and its recommendations.

The following related points were made:

It was suggested EPPR’s experts use a risk assessment to follow through on recommendation 4: that 3 or 4 of the HNS that are carried in bulk be subjected to laboratory investigations or tank tests.

Responders might find an HNS decision-making tool or guide helpful. Such a guide would instruct responders on response techniques and could be a follow up project to address the recommendations.

Mr. Walter Parker (U.S.) encouraged research in other areas to improve response; he credited Canada’s research findings on in situ burning as useful to applications in the western Arctic.

Alternatives to mechanical response are another area that could be researched with help from the U.S. Navy. Mr. Parker also mentioned that there is little to no research on coagulants and encouraged this as a next step in spill response research.

There is a lack of training on how to handle ships with HNS such as sulfur and LNG out in the open water.

Mr. Viitanen (Finland) mentioned that chemical dispersants are not allowed in the Baltic Sea basin; because Finland has no position on the use of dispersants in the Arctic Ocean, he did not take a position on this part of the report.

Mr. Pond (U.S.) offered to compile the recommendations/comments from the US participants, and forward a consolidated matrix to Mr. Bjerkemo by 15 Dec 2010 for consideration by the Correspondence Group.

Mr. Bjerkemo suggested that there should be an executive summary to the report. He also noted that some of the recommendations may be of interest to the other working groups as was the case with the AMSA report and these could guide some of industry's future research.

*Conclusions: The group noted the value of the report as a compendium of information on chemicals and other products such as sulfur and liquefied natural gas (LNG). Mr. Bjerkemo mentioned that he needed funding to finalize the report and that Finland, Sweden, and Canada earlier had promised to contribute to delivering a printed report, and outreach materials in the form of an executive summary. The document would be delivered in February to the Senior Arctic Officials for approval at the March meeting and subsequent delivery to the Ministerial meeting in May. EPPR will consider distributing the BoHaSa report on CD to the International Oil Spill Conference meeting. Mr. Pond noted that he would coordinate with the IOSC to determine the submission timeline. Each of the Heads of Delegation named a point of contact for the BoHaSa Correspondence Group.*

## **5.2 Review of the revised Analysis of Agreements (Gap Analysis)**

Dr. John Kelley from the University of Alaska briefed the group on the work he and his team of experts have done on the Gap Analysis report. The proposed name of the new report is "Looking Forward: Assessing the Regional Response Framework for Arctic Emergencies."

Dr. Kelley requested that each Arctic country confirm its agreements and other arrangements and provide this information in the following format:

- List bi-lateral/multi-lateral agreements relevant to EPPR by country (countries);
- Brief description of each agreement;
- Date entered into force;
- Ratification Status;
- URL link; and
- Identification tag

Dr. Kelley noted that increased activity included off- and onshore oil and gas development and the requisite Marine Operational Support; marine transport of oil and gas to include LNG; transport of hard minerals such as iron ore; summer sealift of supplies to Arctic Communities; Arctic research and exploration; and marine tourism. Regarding these activities Dr. Kelley requested that countries advise him if these activities will be pursued and he requested a list of

risk mitigation measures countries may have adopted. Dr. Kelley said that he looked forward to the group's input on adding several annexes rather than creating a voluminous report.

CDR Glenna Tredinnick (U.S.) pointed out that the discussion of the memorandum of understanding tied into the debate and offered to explain some of the reasoning behind the new agreement that the U.S. is proposing. She mentioned that the agreements in place with foreign nations were inadequate to address Deepwater Horizon. For instance there were customs, trade, and transportation issues that were not addressed by the existing agreements and cannot be readily addressed during a crisis. Thus the U.S. Coast Guard is proposing that Arctic countries enter into an MOU which addresses the issues related to offers of assistance. Ms. Guenette agreed and stated that the OPRC did not articulate how to make the agreement actionable or how to operationalize the support commitments. Mr. Igor Veselov (Russia) supported the idea of the project and mentioned a similar effort in the Russian Federation called Global Radius, a system for providing worldwide emergency assistance. Mr. Viitanen stated that Finland has great interest in this political level agreement as the probability of an oil spill on its coasts is high. Dr. Brigham noted that the Baltic Sea region was example of seasonally ice covered area and mentioned that the group could draw on the SAR agreement to inform the negotiation of the response MOU.

*Conclusions: Members thanked Dr. Kelley for his comprehensive work and discussed the possibility of holding a Search and Rescue discussion based on this work. It was also mentioned that a circumpolar response capacity agreement was needed as there was little in the way of environmental response arrangements and those that exist are lacking. The Chair asked members to provide information to John Kelley and delegations to provide input by December 15.*

### ***5.3 Review of the revised Environmental Risk Analysis and Matrices and next steps***

To date, Canada, Finland, Sweden, Denmark, Iceland, Norway, the Russian Federation, and the United States have submitted their risk matrices. Dr. Kelley and his team will compile the information from the risk analysis and submit a draft report for EPPR to review. During the meeting Dr. Kelley from the University of Alaska asked the group about the relationship between the risk matrices and the risk assessment.

## **6. Preparation of deliverables to the 2011 Arctic Council Ministerial Continued**

### ***6.1. Reports on radiological projects: Report - Source Control Phase 4 and A Ten-Year Summary of Prevention Projects***

Maria Holleran Rivera, the United States Head of Delegation, gave a summary of the Source Control project deliverable to the 2011 Ministerial. One report highlights 10 years of collaboration between the Russian Federation and the United States on the Source Control Project. The goal of the project was to improve safety operations at all Russian Federation facilities handling radioactive or other hazardous materials through the introduction and incorporation of risk assessment and hazard mitigation operational strategies at selected facilities. The project encompassed major industrial facilities, each with a different mix of operational hazards. These hazards were analyzed and ranked by level of severity. Mitigation measures were identified and corrective action implemented on a time-table which corresponded to the level of risk posed by the activity. A specific report on phase four,

Transportation of Radioactive Resources at the NIIAR facility will be forthcoming.

Ms. Rivera stated that importance of Source Control projects to the Arctic lay in the transformative nature of the project and the achievement of long-lasting results. Facilities participated in the project made commitments to improving operational safety and conducting periodic operations and safety audits.

## **7. EPPR Project Priorities – Outcomes from the Analysis of the Recommendations in Opening of the Arctic Seas: Envisioning Disasters and Framing Solutions (Arctic Summit Report)**

Mr. George McCormick, Canadian Head of Delegation, led the Correspondence Group established to complete the project priority matrix which was first discussed at the June meeting in Vorkuta, Russia.

Correspondence Group Members exchanged information through email and held telephone discussions to finalize the matrix. The group worked on a spreadsheet prepared by Canada which categorized the “Envisioning Disasters and Framing Solutions” report recommendations into ten headings.

The Correspondence Group reduced the list of categories aligned with EPPR’s mandate: agreements, prevention, ports of refuge, and preparedness. Beneath the category headings are eight projects, of which there is consensus on four suggested projects with four projects already underway in some way shape or form. The group noted that the project list is by no means complete or limited and that the discussion did not commit any nation to undertaking or leading a project. Please see Annex three for Mr. McCormick’s project summary document.

*Conclusions: The group agreed with the request from Ms. Bonnie Leonard (Canada) to change the term mentioned in 1 C from Ports of Refuge to Places of Refuge. The list will serve to establish EPPR work plan priorities. The Chair stated that she would incorporate current and future projects into a framework based on this work.*

## **8. Recent Groundings in the Canadian Arctic**

Ms. Chantal Guenette briefed the group on recent groundings off the coast of Nunavut in the Canadian Arctic and some key findings and observations.

### The Clipper Adventurer

On August 28, 2010 the passenger ship Clipper Adventurer<sup>1</sup> ran aground 65 nautical miles (nm) from Kugluktuk, Nunavut in the Western Arctic, with 200 persons on board. Within minutes the vessel determined that it was not taking on water or discharging fuel nor was it in any immediate danger. It was later confirmed that the vessel had sustained extensive damage to several of its tanks and a minor quantity of fuel was released as evidenced by a sheen observed around the vessel. Due to the nature of the oil, this slick dissipated naturally and no

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<sup>1</sup> The M/V Clipper Adventurer is an ice-capable expedition cruise ship operating commercial voyages to both Polar Regions and owned by Quark Expeditions of Norwalk, Connecticut, USA. The Clipper Adventurer was bound for the Northwest Passage when it ran aground on an uncharted shoal in Coronation Gulf. The vessel, while hard aground, was considered stable with no immediate threat of sinking or floundering. Fortunately, there were no immediate concerns over ice or weather conditions as the weather was clear and seas were calm.

oil was recovered.

Following successful repairs and an assessment to be done by Transport Canada in Port Epworth, the Clipper Adventurer was towed to Cambridge Bay, Nunavut where further repairs were undertaken and the vessel prepared for removal from the Arctic. The Canadian Coast Guard (CCG) icebreakers served as the federal government's centre for on-scene command, support and logistics. On board were CCG Federal Monitoring Officer and a Transport Canada (TC) Marine Safety Inspector. On Sept 23, TC granted clearance for the vessel to be towed to Nuuk, Greenland, to undergo extensive repairs. The CCG vessel escorted the tow of the Clipper to Pond Inlet, after which the tow proceeded unescorted.

Mr. David Tilden (Canada) noted that the area of the first grounding was famed for having the best arctic char fishing in the world and is an important resource to the indigenous community there. There was a lot of concern because of this and also because there was no other port of refuge that could be used. The incident turned out well because it was double hulled vessel—able to withstand seventeen gashes in the hull. Mr. Swanson asked about the robustness of the places of refuge. Mr. Tilden responded that Transport Canada has a finalized process place of refuge for setting criteria to assess environmental risk and decide where to establish a place of refuge; this was the first experience with this process for many personnel.

#### The Nanny

The M/T Nanny ran aground on September 1, 2010 in the Rasmussen Basin near Gjoa Haven, Nunavut. A Notice to Mariners (NOTMAR) indicating a shoal at the vessel's position has been active since 1998.

The vessel, aground on sand and gravel, reported no damage or pollution and was reported stable. Observations made from a Transport Canada aerial surveillance aircraft confirmed that no pollution could be observed and that the discoloration in the water seen in photos consisted of silt and sediment stirred up from the bottom as the vessel used its propellers to attempt to refloat the vessel.

The recovery or refloating plan for this vessel was technically straightforward. Because there was no observable damage or release of products, the obvious option was to lighten the vessel allowing it to free itself. Once freed the vessel would be re-inspected for damage. Weather conditions were favorable and stable during the entire operation. After several attempts, the vessel was refloated and freed under its own power on the morning of Sept 15th. Following inspection of the Nanny, the TC Marine Inspector cleared the vessel to proceed with cargo transfer and voyage. Emergency response resources were demobilized and returned to their respective bases. It should be noted that lightering operations involves offloading product while keeping the vessel "grounded" or in position, usually by filling ballast tanks accordingly.

CCG Resources immediately available in the area of these incidents included the equipment held on board the CCG vessels (Laurier and Larsen). Other resources in the vicinity included a CCG ER response package in two nearby communities, and a Rapid Air Transportable (RAT 150) pollution countermeasures equipment suite located at the CCG Base in Hay River, NWT. In addition, Hay River CCG ER personnel were available and ready to respond when required.

#### Lessons learned:

1. After DWH there was heightened awareness to oil spills in general and to Arctic issues in particular, along with increased media interest. Although these incidents were not technically complicated, resulted in no pollution, and regional resources were sufficient to respond, these

incidents nevertheless elicited significant media attention, nation-wide and internationally.

2. The significant media interest around these incidents, both domestically and internationally was demanding. Responding to media requests requires significant resources, and these incidents reinforced the need for strong communication capabilities.

3. Logistical challenges and infrastructure limitations:

- Due to limited shore-based command centers, CCG vessels may be required to serve this purpose
- places of refuge offer little to no infrastructure to support repairs
- fewer vessels available to assist with rescue towards the end of the shipping season
- rescue operations become more difficult as the weather deteriorates, and ice begins to form, closing off shipping routes
- weather and ice conditions make it difficult to estimate the extent of required repairs and predict a departure date for the vessel from the Arctic
- over wintering of vessels brings with it a host of concerns about preserving the integrity of damaged vessels

*Conclusion: EPPR welcomed Ms. Guenette's brief.*

## **9. Environmental Studies Research Funds**

Mr. Norm Snow of Canada provided the group with an update on the Environmental Studies Research Fund and specifically the proposal for a Beaufort Sea Oil Spill Technical Advisory Committee. The Advisory Group will hold a workshop of experts in 2011. Mr. Snow shared that the proposals out of ESRF will focus on incidents likely to happen and the methods of preventing them. The events of Deepwater Horizon are really disturbing and it is not imaginable that the same type of response might be undertaken in the Arctic.

*Conclusion: Mr. Snow noted that the East Bay project is most relevant to EPPR. EPPR welcomed Mr. Snow's brief.*

## **10. Current Projects**

### *10.1. Search and Rescue Pilot Project*

Mr. Benjamin Strong from the U.S. Coast Guard presented the Arctic Automated Mutual Assistance Vessel Rescue Network (AAMVERNet) proposal. Mr. Strong was scheduled to brief on day one of the meeting but was delayed because of a cruise ship fire that occurred off the coast of California. He had been interviewed on search and rescue for the news. Amver, sponsored by the United States Coast Guard, is a voluntary global ship reporting system used by search and rescue authorities to arrange assistance to persons in distress at sea. Any rescue coordination center in the world can request ship position data to determine the relative position of ships, tracked by Amver, that are near the distress location. Mr. Strong asked the group to take a survey on AMVER, available at the website: <http://bit.ly/epprsurvey>. This survey of Arctic nations will determine regional methods of vessel tracking and the incidence of Amver use in search and rescue cases in the Arctic region, will encourage Arctic nations to have their nationally flagged vessels enroll and report to the Amver system, and will encourage Arctic nations to share vessel position information with the Amver system.

During the discussion he mentioned that the one of the Canadian ships that ran aground this

summer was enrolled in the AMVER program. Mr. Strong also ran a report of the number of reports of vessels above the 66 degree latitude and there were several hundred ships. A recent Lloyds List news story noted that the MCA UK would be closing their rescue coordination centers thereby decreasing maritime assets available to help—and emphasizing the need for programs such as Amver. Mr. Strong noted that commercial shipping sector companies like Beluga and Fednav only have each other to rely upon when navigating.

Commander Skelmosse thanked Mr. Strong for the briefing and asked how SAR authorities contact the Amver program. Mr. Strong noted that Australia, Chile, and Japan have arrangements in place and that commercial ships must report through AMVER.

Conclusion: The group welcomed Mr. Strong's brief and agreed to complete the survey.

### *10.2. Arctic Region Oil Spill Response Resource and Logistic Guide*

Ms. Kari Sheets, from the United States' National Oceanic and Atmospheric Administration (NOAA) provided an overview of NOAA's role in spill response and Arctic initiatives. She highlighted the Coastal Response Research Center's workshops relevant to EPPR to include the previously discussed Opening the Arctic Seas workshop.

ERMA® is a web-based Geographic Information System (GIS) tool designed to assist both emergency responders and environmental resource managers. ERMA integrates and synthesizes various types of information, provides a common operational picture to those involved in an incident, and improves communication and coordination between responders and stakeholders. During the Deepwater Horizon incident ERMA was used on a NOAA/CRRG GIS web platform to provide real-time information and prediction models for weather, and tides. ERMA was tied into area databases on species sensitivity, sensitive infrastructure, spill trajectory models, and was a repository for responders' field observations. Ms. Sheets demonstrated the tool's capabilities by accessing the live, online version and showing several layers of data in an overlay.

Ms. Sheets noted that NOAA was seeking funding to initiate Arctic ERMA and relevant datasets to create a tool that EPPR can use for its Arctic Region Oil Spill Response Resource and Logistic Guide. The baseline project has started and the next steps include a Planning Committee Meeting to be held in Anchorage on December 7, 2010. The attendees will include USCG, NOAA, AOOS, USGS, OSRI, State of Alaska, and Indigenous Representatives. EPPR members are invited to observe the Arctic ERMA workshop in April 2011. The goal of this meeting is to identify data sources and gaps.

*Conclusion: It was noted by several participants that ERMA was a great tool to be used in the future for contingency planning that could possibly linked to the MARSAFE project in Norway—and the work on the Arctic Spatial Database Infrastructure project. Also noted was that this would be a great project for EPPR to undertake because establishing a seamless data transfer system was one recommendation coming out of the AMSA report.*

### *10.3. Update on Radiation Projects*

Ms. Maria Holleran-Rivera gave a presentation on the Nerpa exercise. "Arctic-2010" was conducted on July 28-29, 2010 at the Nerpa Shipyard in the Murmansk Region in northwest Russia and the purpose of the exercise was to assess consequences and response capabilities to a radiation emergency in the northwest region of the Russian Federation. EPPR participated in the exercise both on scene at the Shipyard and in Moscow at the Technical

Crisis Center of Nuclear Safety Institute of the Russian Federation (IBRAE).

The exercise scenario involved a radiation accident at a decommissioned nuclear submarine at the pier of the Nerpa Shipyard. The simulated accident occurred during work to remove gas from the pressure vessels of the vacuum systems of the submarine. The radioactive release scenario plans for the release to travel out of the Shipyard site. The simulated plume required involvement of municipal and regional authorities.

The exercise play involved international partners. The IAEA posted an exercise message on the Early Notifications and Assistance Conventions website (ENAC), their international emergency notification system. Sweden, Finland, Norway, and Canada also exercised the next step in the international notification process by confirming to IAEA's Incident and Emergency Center receipt of the exercise notification.

*Conclusion: EPPR welcomed the information on the Nerpa Exercise.*

#### ***10.4. Update from the Protection of the Arctic Marine Environment Work Group***

Peter Oppenheimer, representing PAME Work Group, provided an overview of two issues most relevant to EPPR. He first discussed the AMSA report implementation and the need for updates on oil and gas projects from the EPPR work group. He also discussed the briefing PAME received from the Arctic Tour Operators group. Additionally, there will be a PAME report on Heavy Fuel Oils, which will be delivered by December 31, 2010.

*Conclusion: EPPR welcomed the information from the PAME Working Group.*

#### ***10.5. Arctic Ocean Review -- Collaboration with PAME***

Mr. McCormick discussed the Arctic Ocean Review workshop that he attended in September 2010 in Washington, D.C. The workshop focused on the human dimension being a new focus of the report. The AOR review team also found a need for more science and noted a lack of integrated assessments or a delineation of conservation areas. He noted that there was limited opportunity for EPPR to add to the report since it is not focusing on emergencies.

*Conclusion: Participants welcomed the update with no questions.*

### **11. Arctic challenges from a Danish perspective**

Commander Jimmy Skelmosé, Denmark's Head of Delegation, gave a presentation on the Greenland Command the Danish military presence in the high north. The Greenland Command (the short name for Island Command Greenland) is a national joint-command responsible for the military defense of Greenland, which is the responsibility of the Chief of Defense of Denmark. The primary task of The Greenland Command (GC) in peace time is surveillance and maintenance of territorial sovereignty. Within this military framework the Greenland Command has a large number of other – primarily maritime – responsibilities, comparable to those of a coast guard. For example the GC is responsible for maritime search and rescue coordination; fishery protection; and anti-pollution and oil spill recovery in the open ocean. For most of these additional duties the Greenland Command is the coordinating authority, on behalf of numerous Danish and Greenlandic ministries, authorities and agencies.

Traditional fishing and hunting are the principal activities for small Inuit settlements along the

coast. These settlements are maintained and supported by the self rule government in Nuuk. However, the small Greenlandic community is experiencing increased growth in the areas of trade, potential oil and gas industry, fishing, scientific research and tourism. During the Arctic summer a large number of cruise ships carrying thousands of passengers are operating in Greenland waters along the entire ice free area from the National Park in the Northeast around Cape Farewell Canada's Ellesmere Island in the Northwest. Cruise operators are warned of the risks against operating alone and are advised by the Danish Maritime Authority to operate in pairs when in remote areas. Their activities are closely monitored when in Greenlandic waters.

Although the Greenland Command HQ is generally responsible for oil spill recovery in the open ocean (outside the territorial waters to the outer line of the Greenland Economical Zone) this obligation is vested with the local Greenlandic government and the operators for all off shore activities in case of an accident – much as the case was with BP in the Gulf of Mexico. Even though the Greenland Command HQ is responsible for oil spill recovery in the open ocean, the HQ maintains limited oil spill response equipment for harbors and shallow waters. In case of an oil spill accident at sea, equipment has to be flown in from Denmark.

In addressing the emerging challenges in the High North, Greenland Command actively monitors the commercial activities in the waters off Greenland. Reporting systems are mandatory for SOLAS ships (merchant vessels/cargo ships above 300 tons in international routes and all passenger ships). Also, GREENPOS, a mandatory ship reporting requirement for ships in the exclusive economic zone (EEZ), is used in conjunction with the Long Range Identification and Tracking (LRIT) system. The Danish Maritime Authority has also suggested the Arctic nations to support the implementation via IMO of a mandatory Arctic code on the conduct and equipment of ships.

*Conclusion: EPPR welcomed CDR Skelmoose's briefing.*

## **12. Day one wrap up, review of decisions, and adjournment of meeting**

The Chair wrapped up by thanking everyone for their work and adjourned the meeting.

## **14. Record of Decisions taken on Day 1**

The Chair opened day two with a review of the Record the Decisions taken on day one with input from participants. A draft Record of Decisions was displayed by the EPPR Secretariat and reviewed by the group. The attendees approved the Record of Decisions. It is included as Annex 2 of this report. The Chair noted an adjustment to the agenda to include a brief on radiation projects and Amver.

## **15. New Project Proposals**

*15.1. Radiological emergency proposals- follow up on training proposals introduced in November 2009: International Radiological Assistance Program Training for Emergency Response (I-RAPTER) and International Medical Management of Radiation Emergencies (I-Medical)*

Ms. Maria Holleran Rivera presented two proposals for radiological emergency response

training. The first, International Medical Management of Radiation Emergencies, is a course intended for first responders and medical professionals who may encounter radiation-related injuries. The training addresses methods to minimize the spread of radioactive contamination when treating and transporting patients and procedures to address injuries to personnel who are contaminated. The second course, the International Radiological Assistance Program Training for Emergency Response (I-RAPTER), is a classroom and field-based course covering radiological search, detection, and identification techniques. The emphasis is on sharing lessons learned and best practices in a realistic setting. Specific topics can be customized to meet local conditions.

If all topics are covered, both courses typically last four and a half days.

*Conclusion: EPPR agreed that the proposed courses would contribute to prevention and preparedness in the Arctic. Participants noted that they would share this project with their respective agencies and authorities and come back with a response.*

### **15.2. New Project Concept Discussion: Arctic Response Cooperation MOU**

Mr. Robert Pond (U.S.) discussed the importance of international stakeholder planning and coordination as a method to ensure maximum resource availability and utilization during a catastrophic oil spill or hazardous substance event. He noted that after the MODU DEEPWATER HORIZON (DWH) spill several nations stepped forward to assist the United States. These offers included equipment, technical expertise, and general assistance. The generosity of support from the international partners of the U.S. cannot be overstated; however the process for requesting and receiving emergency assistance during DWH was proven ineffective and antiquated. The inefficiencies highlighted during the process have informed this project proposal. The international community would be better served by working together before an incident of this magnitude to be prepared to address the challenges faced by responders.

*Conclusion: There were several items raised during an earlier discussion of this item. Mr. Pond agreed to have a revised version of the proposal document for the groups review not later than December 15, 2010.*

## **16 Country Updates**

Country leads presented informational updates and reports on ongoing EPPR activities and projects, as listed below.

### **16.1. Canada**

George McCormick provided a summary of the Statement on Canada's Arctic Foreign Policy. Mr. Melnyk provided copies of the new policy to the group. Mr. McCormick also discussed the Public Review of Arctic Safety and Environmental Offshore Drilling Requirements by the National Energy Board. He noted that the effort is a multi phase approach and industry has asked for a delay in deadline. Mr. McCormick also mentioned the Northern Oil and Gas Research Forum meeting from November 30-December 2, 2010. Mr. David Tilden commented on the ERMA project and let the group know that Environment Canada was developing a similar product related to mapping of the East Bay. He mentioned they would be interested in participating in the workshop and future collaboration to gather shoreline information in a cost effective way. Mr. Snow also added that there was a funded effort through the Beaufort Region Environmental Assessment Research Program focused on oil and gas activities. The program

was funded for \$22 million over five years with \$17 million allocated for hands on research and one of the priority areas being database development. He noted that ERMA would be a good fit and will assist to push ERMA as a funded project.

Ms. Chantal Guenette presented on the Canada/US North Exercise held in Resolute, Nunavut. This exercise tested the Joint Marine Contingency Plan. Ms. Wendie Schaeffer (ICC) noted that indigenous communities were looking for ways to increase the training capacity of the residents. She was encouraged to hear about the emergency training that occurred and wanted to know if local representatives were involved with the planning. Mr. Tilden noted that Alaska's Indigenous Peoples were well represented by the North Slope Borough as well as several government and non-government entities. Issues identified during the exercise included the need to pre-identify staging areas, collect survey airstrip conditions/capacities; and address Customs issues such as soil contamination on imported equipment. Two additional lessons learned were that the short ice-free season means that shoreline cleanup activities will span more than one year and that response operations could quickly drain a community's supply of fuel.

### *16.2. Norway*

Mr. Ole Bjerkemo presented a report from interdepartmental group titled "If the Deepwater Horizon accident occurred in the Norwegian Sea." Several government agencies met to consider the incident in Gulf of Mexico and discuss issues related to the safety and working environment in the petroleum industry; regulations related to emergency preparedness and environmental consequences; and governmental oil spill preparedness and response. For the last year Norway has been developing a system similar to the U.S's Incident Command System for their interagency to coordinate oil spill response. This will be implemented in 2011 Norway has also established the North Atlantic Information Management Center with Iceland, Denmark, Greenland, Faroe Islands and Great Britain. The aim of Center is to record and share information about maritime information in the Northern Atlantic Ocean and the Barents Sea. Mr. Bjerkemo also mentioned the Arctic Frontiers conference that would take place from 23-28 January 2011 in Tromsø. The conference will focus on strategies for sustainable development of the Arctic with two days devoted to science research.

### *16.3. Russia*

Mr. Igor Veselov provide a report on the International Arctic Forum in Russia "The Arctic – Territory of Dialogue" held in September 2010. Around 600 people attended the Forum which was hosted by the Russian Geographical Society. There were over 40 presentations made at 3 plenary sessions with a shared message that peaceful international cooperation in the Arctic region is the key factor in securing the region's successful development in the future. Many of the presentations raised more questions than answers. The Forum has outlined the topics for further extensive research and discussion; the Russian Geographical Society is set to make the Forum an annual event.

Mr. Veselov also presented an update to the Arctic Rescue project series. He told the group that the Russian Federation would host an international scientific – practical conference "Emergency situations in the Arctic: Prevention and Response." The meeting will be held in Yakutsk, Russia from August 22-25, 2011. Mr. Veselov extended the invitation to EPPR Participants and noted that the following topics would be discussed at the meeting:

- Emergency situations in the Arctic
- Prevention and response
- Search and rescue in the Arctic

- Experience and improvement prospects
- People and territory safety protection in the area of potentially dangerous enterprises of the Arctic

### *16.4 United States*

Ms. Maria Holleran Rivera introduced a new project concept on the development of an in-situ burning (ISB) manual. Discussion centered on the lack of information on an in-situ burning manual that addressed Arctic conditions. The proposed manual will discuss environmental factors to be considered when using ISB; Identify equipment that can be used; describe tactics Discuss environmental monitoring during an ISB; provide methods of residue collection; and document nation-specific approval processes and planning checklists. Ms. Holleran Rivera is working with Christy Bohl to develop this proposal. Finland is not able use ISB as a response; Norway, Canada, and Sweden support the consideration of this project proposal. Also the group would like the group to remain aware of OPRC's similar project work to ensure that there is not a duplication of effort.

Mr. Mark Swanson provided an update on the Prince William Sound Regional Citizen's Advisory Council. He noted that there is a focus on prevention and response efforts. The group has worked on the issue of double laden escorts to tankers and realized success as legislation has been passed to preserve tug escorts for Prince William Sound oil tankers. The council has a wealth of information on the effects of major oil spills and many lessons learned from the Exxon Valdez oil spill that may be useful to citizens, organizations, companies, and communities continuing to deal with BP's Deepwater Horizon oil spill in the Gulf of Mexico.

Mr. Walter Parker gave the group an update of activities in Alaska. Offshore drilling in the Bering Sea has come to a halt because of the Deepwater Horizon accident. He mentioned that it will be interesting to see what approach the administration will take since the USGS has estimated 20 million barrels of oil may be in the Chukchi and Beaufort Seas. Mr. Parker noted that there was not enough money directed towards research on spill response even after the Gulf of Mexico incident.

### *16.5 Finland*

Mr. Timo Viitanen discussed Finland's Arctic Strategy which was adopted on 7th of June 2010. Finland proposes to strengthen the Arctic Council as the primary cooperation forum. The Arctic strategy focuses on external relations and discusses issues relating to security, the environment, economy, infrastructure and the indigenous peoples in the Arctic, as well as international institutions and the Arctic policy of the European Union. The strategy defines Finland's Arctic policy objectives and discusses ways of promoting them. Proposals for the development of the EU's Arctic policy are also presented in the strategy. The complete version of the strategy has been published in Finnish and English in and can be found at [http://www.vn.fi/tiedostot/julkinen/pdf/2010/arktinen\\_strategia-0706/arktinen\\_strategia\\_070610.pdf](http://www.vn.fi/tiedostot/julkinen/pdf/2010/arktinen_strategia-0706/arktinen_strategia_070610.pdf)

Mr. Viitanen informed the group that Areva Corporation is scheduled to build a nuclear power plant just south of Oulu, Finland. He also mentioned that the 20th Anniversary event for the Arctic Environmental Protection Strategy will be held in July 2011 at Rovaniemi, Finland.

### *16.6 Sweden*

Mr. Bernt Stedt, Sweden's Head of Delegation, gave a presentation on Sweden's response

equipment. Some of the new resources available include three new Coast Guard ships with a large towing capacity, able to tow about 150,000 tons. Sweden is working with Norway to train on this equipment on simulators at the Ship Maneuvering Center in Trondheim and has sent observers to exercises. The new ships should also be able to handle large scale fires onboard ships. Mr. Stedt also informed the group on the Barents Rescue exercise to be held in September 2011 in northern Sweden. Norway, Sweden, Finland, and Russia will take part in the exercise, which aims to improve the preparedness and coordination of civil protection agencies and joint emergency response. The scenario involves a train accident with dangerous cargo and flooding with cross-boundary response implications that will involve municipal and top level authorities.

Mr. Stedt will represent HELCOM and EPPR at the World Maritime University/International Maritime Organization conference on Oil Spill Risk Management in Malmö, Sweden on March 7-9, 2011.

## **17. Oil Budgets: Setting the Context and aligning perceptions**

Dr. John Whitney (United States) provided EPPR a thorough overview on oil in ice. His presentation covered the following topics:

- General Conclusions Oil in Ice Fate and Behavior
- Spill Response to Oil in Ice:
- In-Situ Burning
- Chemical Dispersion of Oil
- Mechanical Recovery of Oil
- Monitor and Wait
- Oil Budgets for Oil in Ice Spills
- Arctic oil Toxicity and Biodegradation

*Conclusion: EPPR welcomed the information presented by Dr. Whitney.*

## **18. Conclusion of EPPR Meeting**

The Record of Decisions was finalized with the addition of two new items. The next meeting location and date were confirmed for June 15-16, 2011 in Whitehorse, Canada. The Record of Decisions is attached at Annex 2. The Chair provided closing remarks and the EPPR group extended its appreciation and thanks to the Chair for providing the venue and superb support of the meeting.

*Annex 1: Timed Agenda*

**DAY ONE – Tuesday, 9 November 2010**

9:00 – 9:30 a.m.

1. Host Country Welcome and Opening remarks (Ms. Ann Heinrich, EPPR Chair)
2. EPPR Work Group Convenes
  - 2.1. Opening of Meeting (Ann Heinrich, EPPR Chair)
  - 2.2. Introductions (EPPR WG Participants)
  - 2.3. Approval of Agenda (EPPR Chair)

9:30 – 10:00 a.m.

3. Update on Arctic Council Activities (EPPR Chair)

10:00 – 10:30 a.m.

4. Update on the work within IMO on the Polar Code and the results of the meeting with the oil industry on November 8th. (Ole Bjerkemo, EPPR Vice Chair)

10:30 – 11:00 a.m. Coffee Break

**11:00 – 1:00 p.m. EPPR Work Group Reconvenes**

5. **Preparations of deliverables to the 2011 Arctic Council Ministerial meeting**

11:00 a.m. – 12:00 p.m.

- 5.1. Review the second draft of BoHaSa; discuss next steps and draft language for the Ministerial Declaration, (Ole Bjerkemo, Norway)

12:00 p.m. – 1:00 p.m.

- 5.2. Review of the revised Analysis of Agreements (Gap Analysis) (Dr. John Kelley, University of Alaska)
- 5.3. Review of the revised Environmental Risk Analysis and Matrices and next steps (John Kelley, U. Alaska)

1:00 p.m. – 2:00 p.m. Lunch – Provided for EPPR WG in the Hilton

**2:00 p.m. - 6:00 p.m. EPPR Work Group Reconvenes**

**6. Continued: Preparations of deliverables to the 2011 Arctic Council Ministerial meeting**

2:00 p.m. – 2:15 p.m.

6.1. Reports on radiological projects: Report - Source Control Phase 4 and A Ten-Year Summary of Prevention Projects (Maria Holleran Rivera, USA)

2:15 p.m. – 2:45 p.m.

7. EPPR Project Priorities – Outcomes from the Analysis of the Recommendations in *Opening of the Arctic Seas: Envisioning Disasters and Framing Solutions* (Arctic Summit Report) (George McCormick, Canada)

2:45 p.m. – 3:05 p.m.

8. Grounding of the Clipper Adventurer Cruise Ship Canadian Arctic August 2010 (Chantal Guenette, Canada)

3:05 p.m. – 3:25 p.m.

9. Environmental Studies Research Funds- Beaufort Sea Spill Prevention and Management- BSPAM (Norm Snow, Canada)

**10. Update on Current Projects**

3:25 p.m. – 3:45 p.m.

10.1. Search and Rescue Pilot Project - AAmverNet (Ben Strong, US)

**3:45 p.m. – 4:00 p.m. Coffee Break**

4:00 – 4:30 p.m.

10.2. Arctic Region Oil Spill Response Resource and Logistic Guide (Kari Sheets, U.S.)

4:30 p.m. – 4:45 p.m.

10.3. Update on Radiation Projects (Maria Holleran-Rivera, U.S.)

4: 45 p.m. – 4:50 p.m.

10.4. Update from the Protection of the Arctic Marine Environment Work Group (Peter Oppenheimer, PAME Work Group)

4:50 p.m. – 5:05 p.m.

10.5. Arctic Ocean Review -- Collaboration with PAME (George McCormick)

5:05 – 5:35 p.m.

11. Arctic challenges from a Danish perspective (Commander Jimmy Skelmosé, Denmark)

5:35 – 6:00 p.m.

12. Day one wrap up, review of decisions, and adjournment of meeting (EPPR Chair)

**DAY TWO – Wednesday, 10 November 2010**

9:00 a.m. – 1:00 p.m. **EPPR Work Group Reconvenes**

9:00 a.m. –9:30 a.m.

13. Opening of Meeting (Ann Heinrich, EPPR Chair)

14. Record of Decisions taken on Day 1 (EPPR Chair and Secretariat)

9:30 a.m. –10:30 a.m.

**15. New Project Proposals**

15.1. Radiological emergency proposals- follow up on training proposals introduced in November 2009: International Radiological Assistance Program Training for Emergency Response (I-RAPTER) and International Medical Management of Radiation Emergencies (I-Medical) (Maria Holleran-Rivera, U.S.)

15.2. New Project Concept Discussion: Arctic Response Cooperation MOU (Robert Pond, U.S.)

10:30 – 11:00 a.m. Coffee Break

**11:00 – 1:00 p.m. EPPR Work Group Reconvenes**

16. Country Updates – countries are invited to present on relevant activities (about 26 minutes each)

16.1. Canada

Summary of the "Statement on Canada's Arctic Foreign Policy" (George McCormick, Canada)

"Public Review of Arctic Safety and Environmental Offshore Drilling Requirements, by the National Energy Board" (George McCormick)

Canada/US North Exercise Resolute, Nunavut (Chantal Guenette)

1:00 p.m. – 2:00 p.m. Lunch – Provided for EPPR WG in the Hilton

**2:00 p.m. – 6:00 p.m. EPPR Work Group Reconvenes**

2:00 p.m. – 3:45 p.m. Country Updates continued

16.2. Norway

Presentation about "Exercise Barents 2010," an exercise between Norway and Russia (Ole Bjerkemo, Vice Chair)

Report from interdepartmental group – "If the Deepwater Horizon accident occurred in the Norwegian Sea" (Ole Bjerkemo, Vice Chair)

16.3. Russia

Report on the International Arctic Forum in Russia "The Arctic – Territory of Dialogue" held September 2010 (Igor Veselov, Russian Federation)

16.4. United States

New Project Concept Discussion: In-Situ Burning Manual (Maria Holleran Rivera)  
Alaska Activities Update (Walter Parker)

3:45 p.m. – 4:00 p.m. Coffee Break

4:00 p.m. – 4:30 p.m.

17. Oil Budgets: Setting the Context and aligning perceptions and conception (Dr. John Whitney, United States)

**4:30 - 6:00 p.m.**

**18. Conclusion of Meeting**

18.1. Discussion: Preliminary draft text for the 2011 Ministerial Declaration (EPPR Chair and Secretariat)

18.2. Summary of Meeting Decisions and Follow up Actions (Chair & Secretariat)

18.3. Record of Decisions (EPPR Chair and Secretariat)

18.4. Review schedule through the 2011 Ministerial meeting (EPPR Chair)

18.5. Scheduling of the Next Meeting and closing of the Meeting (EPPR Chair)

## *Annex 2: Record of Decisions*

The following Record of Decisions summarizes decisions made during the EPPR Working Group Meeting. It will be included in the final report.

### **5.1 Review of the Second Draft of BoHaSa**

The group agreed on the following path forward:

Comments on the second draft will be provided to Ole Bjerkemo by December 15, 2010.

A BoHaSa Correspondence Group on recommendations and conclusions will be established and include the following participants: Ole Bjerkemo, Robert Pond, Chantal Guenette, Bernt Stedt, and Magnus Nyström. Igor Veselov will provide names of Russian Federation points of contact.

The final document will be circulated in January for final comment and submitted to SAOs on February 11, 2011.

### **5.2 Looking forward: Assessing the Regional Response Framework**

Comments should be sent to John Kelley and the Secretariat by December 15, 2010.

Final document will be circulated in January for final comment and submitted to SAOs on February 11, 2011.

## **7 Analysis of Recommendations on the Envisioning Disaster Workshop**

George McCormick will create a final summary document to be delivered December 31, 2010.

The Chair agreed to create a listing of EPPR's current and past projects that will be categorized according to the newly created project headings.

### **10.1 Search and Rescue Project Proposal- Arctic Automated Mutual Assistance Vessel Rescue Network (AAMverNet)**

Countries agreed to complete the EPPR/Arctic Council Search and Rescue Questionnaire by December 15, 2010. The questionnaire is located at [www.bit.ly/epprsurvey](http://www.bit.ly/epprsurvey).

### **10.2 Arctic Region Oil Spill Response Resource and Logistic Guide**

Heads of Delegation agreed to continue the pilot demonstration between the United States and Canada. Others will determine the usefulness to their countries.

EPPR members are invited to attend the ERMA workshop in Anchorage, AK in March 2011.

The decision to proceed with the project will be made at June 2011 meeting.

### **15.1 Radiological emergency proposals- follow up on training proposals introduced in November 2009**

I-Rapter and I-Medical training courses will be offered in 2011 as EPPR sponsored courses and EPPR will be invited to participate.

### **15.2 New Project Concept Discussion: Arctic Response Cooperation MOU**

The meeting agreed to consider development of a memorandum of understanding on oil spill coordination in the Arctic. Comments on the proposal should be provided to Robert Pond by Friday, November 12. Mr. Pond will distribute an updated proposal to delegates by November 16. Comments are due to Robert by December 15, 2010.

## **16 Country Updates**

The Russian Federation will conduct a conference entitled “Emergency Situations in the Arctic: Prevention and Response” in Yakutsk, Russian Federation from August 22-25, 2011. EPPR will be invited to participate under the Arctic Rescue project.

Bernt Stedt will represent EPPR at the World Maritime University/IMO Oil Spill Risk Management conference taking place in Malmo, Sweden from 7-9 March 2011.

## **18 Conclusion of Meeting**

The next meeting will be held June 15-16, 2011 in Whitehorse, the capital of the Yukon Territory, Canada.

*Annex 3: EPPR Project Priorities- Outcomes from the Analysis of the Recommendations in Opening of the Arctic Seas: Envisioning Disasters and Framing Solutions (Arctic Summit Report)*

**Background**

One of Protection of the Arctic Marine Environment's (PAME) goals was to conduct a comprehensive Arctic Marine Shipping Assessment (AMSA). As part of that commitment, a workshop titled "Opening of the Arctic Seas" was held at the University of New Hampshire in 2008 to investigate several scenarios related to Arctic shipping.

These scenarios included:

1. A cruise ship runs aground while exiting a fjord on west coast Greenland in September- all passengers must abandon.
2. A bulk ore carrier becomes trapped in ice while attempting a late season crossing of the Arctic on route to the Bering Sea
3. A tug loses power while towing a barge laden with mining explosives/other cargo destined for Arctic communities. Tug/ barge runs aground, vessels sink, fuel spills, some cargo lost.
4. An oil tanker maneuvers unsuccessfully in near-zero visibility and collides with a fishing vessel in a region of the Barents Sea disputed by Russia and Norway.
5. Drill Ship Incident- numerous vessels are in the vicinity of an exploratory drilling operation along US/ Canada border- Herschel Island area. An engine room fire on the ice management vessel causes the operator to lose control and collide with the drill ship.

During this workshop, the following questions were posed:

- A. If incident happened today, how would we respond?
- B. How would we prefer to respond?
- C. What are the gaps and needs that exist today that prevent us from responding in the preferred manner?
- D. What do we need to do to address those needs and fill the gaps?.

**Key Workshop Findings and Recommendations**

The workshop recommendations were assembled into the following 8 categories which included:

**1. Ports and Waterway Management**

Designate potential places of refuge in the Arctic and develop guidelines for their use;  
Control and track vessel movements

**2. Vessels and Crew Safety**

Institute mandatory safety regulations for arctic operations.

**3. Response Agreements and Plans**

Strengthen multinational plans and agreements or create one Arctic agreement for all types of responses.

**4. Strategies to Improve Prevention and Preparedness**

Conduct comprehensive environmental risk assessments and impact assessments for the Arctic; Increase emergency response assets, equipment, and supplies in the Arctic,

placing emphasis on regions of active development; Improve knowledge for Arctic incident response through training and engagement of the local community, responders, and the shipping industry.

**5. Strategies to Improve Response**

Consider alternative countermeasures for oil spill cleanup; Expand communications capabilities throughout the Arctic; Improve logistical support capabilities for responders.

**6. Strategies to Foster Community Involvement**

Involve indigenous people and local communities in planning, response, recovery, and restoration decisions and operations; Conduct outreach to the local community and keep stakeholders well informed.

**7. Strategies to ensure availability of Funds for Response**

Establish an international Arctic response fund; Increase penalties and insurance requirements for ships operating in the Arctic.

**8. Research Needs**

Update weather data and navigational charts for the Arctic; Study the behavior of oil in cold water and technologies for spill response.

**EPPR LEAD/ PROGRESS**

EPPR was then tasked with reviewing the recommendations and focusing on specific areas as potential EPPR's topics of interest to help inform future projects and activities. EPPR's focus discussion resulted in the following categories: "Of Interest", "Need More Information" or "Not Relevant." Topics of interest to EPPR were the following potential projects which were grouped into similar types/ issues, and resulted in 10 distinct areas of interest (in no particular order):

1. **AGREEMENTS** - Agreements requiring multi partners and national interests. Overall activity is to compel nations to conform to an acceptable standard and establish mutual aid agreements for response.
2. **PREVENTION** - These issues are predominately preventative in nature in that they either assist in preventing collisions, grounding or striking or act as an impact reducer, either physically or financially.
3. **PLACES OF REFUGE** - These items are virtually identical calling for a pre-identification of potential places of refuge.
4. **PREPAREDNESS** - These items are predominantly preparedness issues including training, planning and exercising before an incident occurs. Most, if not all of these components exist in current nations plans, although they may not be consistent between nations depending upon the traffic profile and risk evaluations.
5. **RESOURCES & ASSETS** - Issues related to direct increase in resources, and in particular enhanced communications and hard assets.
6. **RESPONSE OPERATIONS** - These items are fundamentally operational and executed during a response.
7. **POST RESPONSE ACTIVITIES** - These items are considered to be after or post operations.
8. **LANGUAGE ISSUES** - These are language issues.
9. **OUTREACH** - These are communications issues related to outreach.
10. **BACKGROUND/BASELINES** - These items require acquisition of data sets to be used for increasing knowledge and background.

Following the review of topics of interest, EPPR pared down the list of subject categories that likely apply to our EPPR mandate. These categories include: Agreements, Prevention, Places of Refuge, and Preparedness.

## **SUMMARY**

Beneath the four noted category headings are eight projects, of which there is consensus on four of these, with four projects already underway to some degree.

### **A. Agreements**

#### **1. Arctic-wide SAR MOU**

This is an ongoing project.

#### **2. Arctic-wide Emergency Incident Response Coordination MOU**

This is a potential EPPR coordination project

#### **3. Guideline for Commercial Vessels Operating in Arctic Waters**

This is similar to PAME's Arctic Guidelines Framework document.

#### **4. Incident Management Guidelines for International Cooperation during an emergency event**

This is a potential EPPR coordination project, i.e. no 2 countries do the same type of work.

### **B. Prevention**

#### **1. Ecologically based assessment of Risks and strategies to prevent, mitigate, and respond to and recovery from those risks.**

These issues are imbedded in each country's response plans; now working on project to do resource overlay- may form basis for future projects. Consider taking information that is available in every area plan binder. This topic ties in with the work being done by University of Alaska.

### **C. Places of Refuge**

#### **1. Potential Project: Arctic Wide Guidelines for Designation of Places of Refuge.**

This ties in perfectly with the resource project; potential EPPR project.

### **D. Preparedness**

#### **1. Potential Project: Arctic Wide Guidelines for Use of Various Response Options and for response training and exercise**

Imbedded in contingency plans; arctic in-situ burning guidelines for a water response OPRC; Polar Code; consider training and exercises for people on ships.

Mention made of the in situ burning proposal and projects on oil & ice

#### **2. Support research focused on understanding behavior of oil/HNS in cold water/snow/ice environments**

This project idea is being undertaken in part with the Behaviour of oil and other hazardous and noxious substances (HNS) spilled in Arctic waters (BoHaSA) report.

### **CONCLUSION**

This EPPR led exercise has assisted us in establishing EPPR work plan priorities. The group agreed that this was acceptable and future documents reflect this change. It should be noted that the project list is by no means complete or limited, and that the discussion did not commit any nation to undertaking or leading a project. The Chair stated that she would incorporate current and future projects into a framework based on this work.

## *Annex 4: Minutes of Oil and gas industry and EPPR meeting*

### **Introduction**

The meeting was held in Arlington, Virginia in the United States on the November 8, 2010. The meeting took place as a follow up of the Roundtable between the oil and gas industry and representatives from Arctic Council and Arctic Councils working groups in Tromsø, Norway in January 2008 and in Las Vegas, Nevada in March 2009.

Ole Kristian Bjerkemo chaired and opened the meeting by asking individuals to introduce themselves and reviewing the agenda.

### **Aim of the meeting**

To share information on relevant projects and activities of mutual interests, discuss possible future cooperation and other relevant issues.

### **Participants**

See below for the list of participants.

### **Info from the Arctic Council**

The Arctic Council is still discussing the issue of Observers to the Arctic Council. To the knowledge of the participants in the meeting, no decision has been made by the Arctic Council on applications for Observer status currently under consideration, including applications from industry.

### **Info from EPPR**

Ole Bjerkemo mentioned that much has happened since the meeting in 2009 and he reviewed the work plan from the last EPPR meeting which included finalized projects. Mr. Bjerkemo also reviewed the 4 finished projects that fell under the umbrella of Arctic Rescue projects. Ann Heinrich provided participants with the Strategic Plan and mentioned that it was endorsed this year by the Senior Arctic Officials. She emphasized that the sharing and exchange of information is the basis of EPPR's work.

### **BoHaSa update**

Ole Bjerkemo led the discussion on the report "Behaviour of Oil and Other Hazardous and Noxious Substances (HNS) Spilled in Arctic Waters" [BoHaSa]. Norway developed the BoHaSa project in response to a request in the Salekhard Declaration to synthesize knowledge and expertise on the behavior of oil and other hazardous substances in Arctic waters and to promote the development and use of technologies and working methods that improve the capability to respond to accidents. BoHaSa is not a research project. SINTEF, an independent research concern in Scandinavia, was contracted to write the report which included several conclusions and recommendations. Mr. Bjerkemo informed industry representatives that he had briefed the conclusions to the Senior Arctic Officials at the last meeting in Torshavn, Faroe Islands.

Mr. Bjerkemo mentioned that it may be important to bring attention to the joint industry projects mentioned in the BoHaSa report to highlight industry cooperation. Also it was suggested that the background address the scope of the project so that the focus of the report is clear. EPPR's goal is to have a final product to the Ministerial meeting in May. Industry members were invited to provide comments on the report soonest, as EPPR deadlines for submitting the final report in time for the 2011 Ministerial are quickly approaching.

Final funding requirements for the BoHaSa report will be determined once EPPR determines the principal media for publication and the formats in which the final report will be produced. For example, the report may principally be published in electronic form, or EPPR may decide to print a smaller number of full copies but widely print and distribute the executive summary. The report will be the subject of an IOSC presentation in May 2011 and an OPRC presentation in July 2011.

### **Info from Oil and gas industry**

Alexis Steen from ExxonMobil Corporation presented on Joint Industry Project Planning. Though many nations are involved in the projects it is Norway and Canada who have enabled the majority of the demonstration projects underway in the field.

The oil industry is working with government entities to conduct research topics of mutual interest that would cost-prohibitive to undertake individually. The next JIP will address oil spill response in the Arctic region's unique environment (low light and visibility, sea ice, eroding shorelines, severe weather, etc.). The JIP is currently under discussion, and the target date for start-up is the first quarter of 2011. The policy drivers of the research projects include improving credibility by involving multiple stakeholders and NGOs, and formulating a clear message based on the data to counter the position opposed to development.

Ms. Steen requested that the EPPR participants reach out to contacts that may be able to participate in the JIP work. Organizations able to contribute to the research effort are welcome to join the group. Richard Ranger of API mentioned that the Observation Board exists for those outside organizations and trans-governmental bodies that are able to inform the work, but not necessarily to make a cash contribution to the cost of the study. Norway's government is involved in providing research and resources and Mr. Ranger suggested that this may be the case for others around the table. Mr. Robert Pond mentioned that the group should also consider non-Arctic contributions from Australia and New Zealand since they were concerned with oil spills in the Antarctic. Mr. Pond also mentioned that the Pew Charitable Trust may be interested in the subject as part of its activities dealing with oil exploration in the Arctic.

Ms. Steen also highlighted ongoing research and development projects to include shoreline oil spill response, biodegradation rates in the Arctic, and the use of ground penetrating radar to detect oil under ice. There was a proposal made to do a JIP on recovery and response in the dark to simulate a real-world emergency scenario. Mr. Ole Bjerkemo indicated that Norway was considering projects on remote sensing and operations at night. Mr. Norm Snow of Canada mentioned the use of radar in Svalbard and that work is presently being done on this subject that is of interest to the group. Mr. Igor Veselov mentioned that there was a briefing at the September's Arctic dialogue conference on the work from a laboratory in Murmansk which is modeling the reaction of oil spills and HNS in water. This presentation supported the need to know what chemical are being transported and for responders to prepare for various incidents with chemical substances.

During the JIP briefing an idea was mentioned to consider using the EPPR website to host information on JIPs. The group will keep this in mind as the website is developed.

### **IOSC Discussion**

The International Oil Spill Conference will take place on May 23-26, 2011 in Portland Oregon with several abstracts covering cold-weather cutting edge technology. There will be a session

on the platform blowout on East Timor. Also on May 22, prior to the main event, planners are organizing a half-day session on mechanical recovery with invited speakers set to discuss planning standards.

There is quite a lot of work underway to review documents that will be presented at the conference. Two of the papers being presented are the Arctic Maritime Risk Assessment from PAME and the BoHaSa project from EPPR. The planners need to determine the schedule for the reproduction of CDs or printed versions of these reports. This cost is budgeted through the IOSC. EPPR needs to determine the release procedures because the document is scheduled to be presented to the Ministerial meeting May 12, 2011. The BoHaSa report will likely need to be pre-cleared if it is to be made available through the IOSC.

**Next steps**

- Industry will comment on the BoHaSA report.
- The group will keep industry apprised of the question on observer status.
- Consideration of the use of the EPPR website to link to reports and results of research efforts.

**List of participants**

<b>NAME</b>	<b>e-mail</b>	<b>Country</b>
Chantal Guenette	chantal.guenette@dfo-mpo.gc.ca	Canada
George McCormick	George.McCormick@ainc-inac.gc.ca	Canada
Norm Snow	<a href="mailto:execdir@jointsec.nt.ca">execdir@jointsec.nt.ca</a>	Canada
David Tilden	David.Tilden@EC.GC.CA	Canada
CDR Jimmy Skelmose	FKO-OPP205@mil.dk	Denmark
Ole Kristian Bjerkemo	<a href="mailto:ole-kristian.bjerkemo@kystverket.no">ole-kristian.bjerkemo@kystverket.no</a>	Norway
Richard Pedersen	Richard.Pedersen@mfa.no	Norway
Igor Veselov	<a href="mailto:veselov@mchs.gov.ru">veselov@mchs.gov.ru</a>	Russian Federation
CAPT John Caplis	John.R.Caplis@uscg.mil	USA
CDR Meredina Kaufman	Meredina.Kaufman@uscg.mil	USA
Robert Pond	Robert.G.Pond@uscg.mil	USA
Maria Holleran Rivera	Maria.HolleranRivera@nnsa.doe.gov	USA
Mark Swanson	mark.swanson@pwsrca.org	USA
CDR Glenna Tredinnick	Glenna.T.Tredinnick@uscg.mil	USA
Richard Ranger	<a href="mailto:rangerr@api.org">rangerr@api.org</a>	American Petroleum Institute
Alexis Steen	alexis.e.steen@exxonmobil.com	ExxonMobil
Ann Heinrich	<a href="mailto:Ann.heinrich@nnsa.doe.gov">Ann.heinrich@nnsa.doe.gov</a>	
Allison Saunders	allison.saunders@orise.orau.gov	

*Annex 5: List of Meeting Participants*

\*: Head of Delegation (HoD)

**EPPR:**

Ms. Ann Heinrich  
EPPR Chair  
U.S. Department of Energy  
[Ann.Heinrich@nnsa.doe.gov](mailto:Ann.Heinrich@nnsa.doe.gov)  
+1 (202) 586-8165

Ms. Allison Saunders  
EPPR Secretariat  
ORISE  
[Allison.Saunders@orise.orau.gov](mailto:Allison.Saunders@orise.orau.gov)  
+1 (202) 955-7919

**Canada:**

Ms. Bonnie Leonard  
Transport Canada  
[Leonarb@tc.gc.ca](mailto:Leonarb@tc.gc.ca)  
+1 (613) 990-4887

Ms. Chantal Guenette  
Environmental Response, Coast Guard  
[chantal.guenette@dfo-mpo.gc.ca](mailto:chantal.guenette@dfo-mpo.gc.ca)  
+1 (613) 949-9150

Mr. Micah Melnyk  
Secretariat of the Department of Foreign  
Affairs & International Trade  
[Micah.Melnyk@international.gc.ca](mailto:Micah.Melnyk@international.gc.ca)

Mr. George McCormick \*  
Indian and Northern Affairs Canada  
[George.McCormick@ainc-inac.gc.ca](mailto:George.McCormick@ainc-inac.gc.ca)  
+1 (819) 953-8491

Mr. Norman Brian Snow  
Joint Secretariat – Inuvialuit Settlement Region  
[snown@jointsec.nt.ca](mailto:snown@jointsec.nt.ca)  
+1 (867) 777-2828

Mr. David Tilden  
Environment Canada  
[David.Tilden@EC.GC.CA](mailto:David.Tilden@EC.GC.CA)  
+1 (867) 669-4700

**Denmark:**

Commander Jimmy Skelmose \*  
Danish Defence Command  
[FKO-OPP205@mil.dk](mailto:FKO-OPP205@mil.dk)  
+45 4567 3225

**Finland:**

Mr. Timo Viitanen  
International Affairs Ministry of the Interior  
[timo.viitanen@intermin.fi](mailto:timo.viitanen@intermin.fi)  
+358 (71) 878 8440

**Inuit Circumpolar Council Alaska:**

Ms. Wendie Schaeffer  
ICC Alaska  
[WSchaeffer@NWABOR.ORG](mailto:WSchaeffer@NWABOR.ORG)  
+1 (907) 442-2500

**Norway:**

Mr. Ole Bjerkemo \* (EPPR Vice Chair)  
Norwegian Coastal Administration  
[Ole.Bjerkemo@kystverket.no](mailto:Ole.Bjerkemo@kystverket.no)  
+ 47 33 03 48 18

Mr. Richard Pedersen  
Royal Norwegian Embassy USA  
[Richard.Pedersen@mfa.no](mailto:Richard.Pedersen@mfa.no)

**Russia:**

Mr. Igor Veselov \*  
EMERCOM Russia  
[veselov@mchs.gov.ru](mailto:veselov@mchs.gov.ru)  
+ 7 495 626 35 93

**Sweden:**

Mr. Johan Bergstrom-Ring  
Swedish Ministry of Defence  
[johan.bergstrom-ring@defence.ministry.se](mailto:johan.bergstrom-ring@defence.ministry.se)

Mr. Bernt Stedt \*  
Swedish Coast Guard  
[bernt.stedt@kustbevakningen.se](mailto:bernt.stedt@kustbevakningen.se)  
+46 (45) 535 3453

**United States:**

Dr. Lawson Brigham  
University of Alaska  
[lwb48@aol.com](mailto:lwb48@aol.com)

Dr. John Kelley  
Professor Emeritus, Marine Science  
University of Alaska  
[jjkelley@alaska.edu](mailto:jjkelley@alaska.edu)  
+1 (907) 474-5585

Ms. Maria Holleran Rivera \*  
United States Department of Energy  
[Maria.HolleranRivera@nnsa.doe.gov](mailto:Maria.HolleranRivera@nnsa.doe.gov)  
+1 (202) 586-6453

Mr. Robert Pond  
United States Coast Guard  
[Robert.G.Pond@uscg.mil](mailto:Robert.G.Pond@uscg.mil)  
+1 (202) 372-2240

Mr. Walter Parker  
Prince William Sound Regional Citizens'  
Advisory Council  
[wbparker@qci.net](mailto:wbparker@qci.net)  
+1 (907) 333-5189

Ms. Kari Sheets  
National Oceanic and Atmospheric  
Administration  
[Kari.Sheets@noaa.gov](mailto:Kari.Sheets@noaa.gov)

Mr. Benjamin Strong  
United States Coast Guard  
[Benjamin.M.Strong@uscg.mil](mailto:Benjamin.M.Strong@uscg.mil)  
+1 (212) 668-7762

Commander Glenna Tredinnick  
U.S. Coast Guard  
[Glenna.T.Tredinnick@uscg.mil](mailto:Glenna.T.Tredinnick@uscg.mil)  
+1 (202) 372-2252

Mr. Mark Swanson  
Prince William Sound Regional Citizens'  
Advisory Council  
[mark.swanson@pwsrca.org](mailto:mark.swanson@pwsrca.org)  
+1 (907) 834-5000

Dr. John Whitney  
National Oceanic and Atmospheric  
Administration  
[John.Whitney@noaa.gov](mailto:John.Whitney@noaa.gov)

Commander Rich Wingrove  
U.S. Coast Guard  
[Richard.R.Wingrove@uscg.mil](mailto:Richard.R.Wingrove@uscg.mil)

**Observers:**

Paul Cunningham  
United States Department of State  
[CunninghamPM2@state.gov](mailto:CunninghamPM2@state.gov)

Carole Holley  
Circumpolar Conservation Union  
[cholley@pacificenvironment.org](mailto:cholley@pacificenvironment.org)

Pex Langenberg  
[pex.langenberg@minbuza.nl](mailto:pex.langenberg@minbuza.nl)

Peter Oppenheimer  
NOAA/PAME Work Group  
[Peter.Oppenheimer@noaa.gov](mailto:Peter.Oppenheimer@noaa.gov)