Emergency, Preparedness, Prevention, Response
EPPR Working Group

Report to the SAO Meeting

March 16 – 17, 2011

Copenhagen, Denmark
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1. Introduction

The Emergency Prevention, Preparedness and Response Working Group (EPPR) addresses the prevention, preparedness and response to environmental emergencies in the Arctic. Members of the Working Group exchange information on best practices and conduct projects to include development of guidance and risk assessment methodologies, response exercises, and training with the goal to contribute to the protection of the Arctic environment from the threat or impact that may result from an accidental release of pollutants or radionuclides. In addition, the Working Group considers questions related to the consequences of natural disasters.

The EPPR Working Group is an expert forum designed to:

- Plan and prepare for response to accidents;
- Develop strategies and tasks to prevent accidents;
- Enhance best practices; and
- Focus on the environmental implications of emergencies involving oil, hazardous and noxious substances (HNS), radiation, and natural disasters in the Arctic.

Mrs. Ann Heinrich (USA) is chair of the work group through the 2011 Ministerial meeting and Mr. Ole Kristian Bjerkemo (Norway) is vice-chair.

2. EPPR Working Group Activities

EPPR Meetings

EPPR’s annual meetings were hosted by Emercom in Vorkuta, Russian Federation on June 16 – 18, 2010; and the Department of Energy in and Arlington (VA), United States on November 9-10, 2010. This report reflects discussions and decisions made at the November meeting and subsequent activities.

At the fall 2010 EPPR meeting participants considered the work on updating the EPPR Analysis of Agreements and Risk Analysis documents, reviewed a final draft of the “Behavior of oil and other hazardous substances in Arctic waters” (BoHaSA) report, and discussed potential new projects.
New Project Proposals

EPPR is considering 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 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. EPPR agreed that the proposed courses would contribute to prevention and preparedness in the Arctic. EPPR will further develop the project proposals.

EPPR also held discussions on a new concept for the 2011-2013 Chairmanship: an Arctic Response Cooperation agreement. Mr. Robert Pond of the U.S Coast Guard noted that after the DEEPWATER HORIZON (DWH) spill several nations offered assistance to the United States. These offers included equipment, technical expertise, and general assistance. The generosity of support from the international partners of the U.S. was tremendous however the process for requesting and receiving emergency assistance during DWH was proven ineffective and antiquated. Discussions highlighted 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. The inefficiencies highlighted during the DWH response process have informed this project proposal. EPPR agreed that 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. The group agreed to consider the project and comment on the proposal presented by Mr. Pond.

Project Update

Two new projects were introduced at the June 2010 meeting addressing areas of concern raised in the 2009 Arctic Marine Shipping Assessment and the Deputy Ministers Meeting held in April 2010. These new undertakings will inform the Arctic Council on emergency response capacity for oil-related and shipping-related incidents.

The Arctic Region Oil Spill Response Resource and Logistics Guide will survey the oil spill response resources and capabilities of Arctic States to respond to oil spills in Arctic waters, both near coastlines and on the high seas. Survey information will be used to develop map products which display the location of and describe available resources for oil spill response in the Arctic region. This project is currently underway with the U.S. and Canada undertaking a pilot initiative to compile and integrate data from the two countries. There will be an experts meeting to map future project milestones in Anchorage, Alaska on April
5-6, 2011. EPPR is invited to participate in this meeting and outcomes will be discussed at the next work group meeting in June 2011.

The Arctic Automated Mutual Assistance Vessel Rescue Network (AAmverNet) pilot project is established to investigate the feasibility of Arctic nations to share vessel position information with each other. In this pilot, EPPR will determine regional methods of vessel tracking that Arctic countries use in search and rescue cases. EPPR also will determine the number and type of vessel reporting systems to which Arctic nations nationally flagged vessels enroll and report. Based on the results, EPPR will make recommendations regarding sharing of information among systems. The first phase of the project is compilation of information collected via survey to determine current regional vessel tracking methods and search and rescue capabilities of Arctic nations. Phase II will devise, test, and evaluate a vessel position information sharing network between Arctic region ship reporting systems. Phase III will involve full implementation of the information sharing network if evaluation determines the project should continue. The United States and the Russian Federation are leaders of this pilot project.

**Activities Addressing Oil, Gas and HNS**

**Co-operation on oil spill and HNS response in the Arctic**

In 2009 EPPR focused on developing projects related to co-operation on oil spill and HNS response in the Arctic. The primary aim of one project area under discussion is to address the adequacy of existing regional agreements in relation to the future challenges in the Arctic based on current and future oil and gas and maritime activities, following up on a report previously written by EPPR.

As a result of this discussion, EPPR decided to revise two EPPR products: the "Analysis of the Adequacy and Effectiveness of Existing Arrangements and Agreements" and the Environmental Risk Analysis of Arctic Activities" (1998) which includes risk analysis matrices for each country. Part of the update will address considerations related to natural disasters as this was not in EPPR’s mandate at the time the document was initially published. The revision of these documents is in progress.

**Follow-up from the Opening the Arctic Seas: Envisioning Disasters and Framing Solutions workshop**

A correspondence group within EPPR developed a prioritized master project list for EPPR by evaluating recommendations from the Opening the Arctic Seas: Envisioning Disasters and Framing Solutions workshop held at the University of New Hampshire. The workshop was held in 2008 as a contribution to the Arctic Marine Shipping Assessment (AMSA). As a part of our commitment to follow up on AMSA, EPPR has discussed and evaluated the recommendations from the
scenarios to identify future projects for EPPR. This exercise has assisted the work group in establishing EPPR work plan priorities. The EPPR priorities list will be the basis for project planning discussions at future EPPR meetings including the upcoming meeting in June 2011.

**Behavior of oil and other hazardous substances 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. The objective of the BoHaSa Project is to gather and synthesize current knowledge and expertise on the behavior of hazardous substances in Arctic waters to promote the development and use of technologies and working methods that improve the ability to respond to accidents involving such substances.

The project was initiated in 2009 and the final report is submitted to this meeting for approval. With SAO approval, EPPR intends to submit the BoHaSa report to the 2011 Ministerial meeting. The BoHaSa project has links to the work on the Joint Industry Project, Oil in Ice. The BoHaSa Project analyzes how HNS properties (e.g., physical state; density; solubility; vapor pressure) will behave when exposed to temperatures prevalent in the Arctic and the associated implications and impacts on the response to spills involving HNS.

The BoHaSa Project has yielded eleven conclusions and five recommendations. EPPR will consider the conclusions and recommendations for development of future projects and invites other Work Groups to consider this information as well.

**Automated Questionnaire for Assessing Spill Response Preparedness**

EPPR members evaluated the software program entitled “Automated Questionnaire for Assessing Spill Response Preparedness.” Members determined that there was little usefulness in expanding this product for international use. EPPR decided Work Group efforts would be better spent on other preparedness projects.

**Guidelines and Strategies for Oily Waste Management in the Arctic Regions**

The Guidelines project, led by Canada, was completed in 2009. The Oily Waste Calculator, a companion software application to aid planners and decision makers, has been developed to support the guidelines. The calculator software application is available on the EPPR web site.
**Activities addressing Radiation**

**Radiological Response Exercises**

At the October SAO meeting the EPPR Chair presented the results from Exercise "Arctic-2010" conducted on July 28-29, 2010, at the FSUE "Nerpa Shipyard" in the Murmansk Region in northwest Russia. The exercise assessed the response capabilities to a radiation emergency in the northwest region of Russia. The exercise scenario involved a radiation accident at a decommissioned nuclear submarine at the pier of the Nerpa Shipyard.

The final report on the exercise will be submitted to Senior Arctic Officials for review and approval prior to the 2011 Ministerial. In addition, a brochure reviewing the EPPR exercise series is being produced for the Ministerial meeting.

**Source Control**

EPPR's Source Control work improves safety operations at facilities handling radioactive or other hazardous materials through the introduction and incorporation of risk assessment and hazard mitigation operational strategies. The most recent activity conducted, the fourth phase of the project, was aimed at the application and further verification of the developed methodology in a new area – transportation of radioactive sources by vehicles (versus a fixed facility). The project was implemented at the Scientific and Research Institute of Atomic Reactors in Dimitrovgrad, Russian Federation (NIIAR). This Institute is a large enterprise which is involved in the production and transportation of medical radioactive sources. This phase of the project yielded recommendations to improve safety of transportation of radioactive sources at the NIIAR facility. A final report on the NIIAR assessment is completed and a brochure on the Source Control Project, spanning 10 years, will be published.

**Community Radiation Information**

The Community Radiation Information Project develops tools to help specialists communicate radiation and emergency information with the public and media. EPPR has just completed and will soon publish a Glossary for Nuclear Power Plant Information Services in Russian that translates scientific and technical terms into plain language. It includes the list of the basic terms used by experts during a radiation incident or accident, the perception of these terms by journalists and population, and recommendations on using these terms in public communications under the different event conditions. The accumulated experience was used to prepare public information messages during the EPPR exercise at the “Nerpa” Shipyard in July 2010. The Glossary will be published this spring in Russian and will be available on the EPPR web site.
Activities within Natural Disasters

Managing the cold conditions – a systematic approach

The project "Managing the cold conditions - a systematic approach" aims to build up the capacity for protection against extreme cold temperatures as part of the regional and interregional Emergency and Rescue Services in the Barents Region. Covering primarily safe treatment of victims in winter conditions, it aims also to support operations in the same situations. The Crisis Management Centre (CMC) of Finland hosted the seminar “Responding to Cold Emergencies - EU's Cold Conditions Module” in November 2010.

Collaboration with Permanent Participants, other Arctic Council Working Groups, and Other Relevant Bodies

To increase effectiveness and minimize duplication, EPPR works with Arctic Council entities and other organizations with the common goal of addressing the Arctic perspective in emergency preparedness and response. EPPR will cooperate with other organizations by:

- Informing about EPPR and EPPR projects at relevant conferences and seminars to include the conference “Touch of Oil” at the University of Turku’s Centre for Maritime Studies in Porvoo, Finland 16-17 February 2011; the Oil Spill Risk Management Conference sponsored by the World Maritime University and International Maritime Organization 7-9 March in Malmo, Sweden; and the upcoming International Oil Spill Conference in Portland, Oregon May 23-25, 2011.
- Maintaining liaison with PAME and support relevant PAME projects such as the Arctic Ocean Review and follow up projects resulting from the AMSA report.
- Maintaining liaison with the oil industry and other relevant organizations with the aim to enhance oil spill prevention, preparedness and response in the Arctic.

3. EPPR Working Group Administration

Secretariat

The U.S. provides Secretariat support to the Working Group.

Web Page

The EPPR’s homepage http://eppr.arctic-council.org/ is currently maintained by Swedish Radiation Safety Authority. The web site has been modified to increase
the amount of information available on the web site and to highlight more timely information.

The EPPR homepage serves as its main outreach and communication tool. All EPPR-related reports, brochures, posters and other resources are available on the homepage. All of the documents are provided in English and some in Russian. We are fielding a demonstration site for comment and review at: http://epprdemo.net. Comments regarding the demonstration web site are welcome. The new web site will be operational by April 8, 2011.

#### ACCIDENTAL OIL AND HNS POLLUTION: L – LEAD P- PARTICIPANT

<table>
<thead>
<tr>
<th>Project</th>
<th>Canada</th>
<th>Denmark/Greenland</th>
<th>Finland</th>
<th>Iceland</th>
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<td>Develop Guidelines for International Assistance and Cooperation During a Catastrophic Incident Response</td>
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<td>Arctic Rescue</td>
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<td>Development of Safety Systems in Implementation of Economic and Infrastructural Projects</td>
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<td>Follow-up on Behavior of Oil and other Hazardous Substances in Arctic Waters (BoHaSA) Recommendations</td>
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<td>Update of Analysis of Agreements</td>
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<td>Pilot project: Arctic Emergency Resource Maps for Oil Spill Response (decision support tool for Arctic application)</td>
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<td>Update the Arctic Guide for Emergency Prevention, Preparedness and Response</td>
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## RADIOLOGICAL EMERGENCIES: L – LEAD P- PARTICIPANT

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<td>Improve Technical Analysis Capabilities for Radiological Emergency Response</td>
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<td>Technical Crisis Center support to the EMERCOM Crisis Situation Management Center, Phase II</td>
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<td>Conduct of Radiation Emergency Exercises</td>
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<td>Conduct of Radiation Emergency Training</td>
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<td>Emergency Rescue Team Equipment Testing</td>
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<td>Community Radiation Information</td>
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## NATURAL DISASTERS and OTHER HAZARDS L – LEAD P- PARTICIPANT

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<tr>
<td>“Managing the cold conditions – A systematic approach”</td>
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<td>Pilot Project: Arctic Automated Mutual Assistance Vessel Rescue Network (AAMVERNET)</td>
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### CO-OPERATION WITH OTHERS AND LIAISON ACTIVITIES

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<td>Cooperation with Oil Industry</td>
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### OTHER ISSUES L – LEAD  P- PARTICIPANT

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