

EPPR Working Group Meeting

June 16-18, 2010

Vorkuta, Russia

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1. Host Country Welcome and Presentation of Activities

The 2010 annual meeting of the EPPR working Group was hosted by Emercom in Vorkuta, Russian Federation. Mr. Igor Veselov, Head of Delegation of the Russian Federation, opened the meeting and wished all a productive session. Mr. Veselov introduced EMERCOM Deputy Minister Alexander Chupriyan who encouraged the Working Group to exchange viewpoints for the safety of human beings.

Mr. Ivan Pozdeev, the Komi Republic Deputy Governor, welcomed the group to the Komi Republic and reminded all that the Arctic is not just a place but a home to many to be used properly and preserved as well. Mr. Valery Budovsky, the Mayor of Vorkuta, addressed the group and noted that this was the first time his city has hosted such a high-ranking delegation and meeting of an international forum. He recognized the importance of EPPR's work as consideration is given to the adoption of agreements on the Arctic in the light of new technology for mining which opens new opportunities for mankind. He told the group that the city would do its best to make the meetings productive and to provide a good impression of its open-hearted people. Mr. Rostislav Goldshtein, Deputy Chair, State Duma Committee welcomed the group and wished the meeting success with our important work.

2. Protection of People and Territories in the Arctic Sector of the Russian Federation and Security Systems Development

Mr. Alexander Chupriyan, EMERCOM Deputy Minister, gave an overview of the Russian Federation's Arctic Safety Systems. Beginning with a statistical review of the Russian Arctic, its resources, and the contributions the region makes to the Russian Federation's economy, the Deputy Minister provided an assessment of the Arctic's importance. The Arctic zone of the Russian Federation has an area of more than 9 million square kilometers (4.9 million km² - lands, 4.0 million km² - sea, 0.2 km² - islands) and is home to about 1.5 million people, representing 1% of the population of the Russian Federation. Although the Arctic region is characterized by extreme climate conditions, the Arctic zone of the Russian Federation creates more than 12% of the Russian Federation's GDP and provides about 25% of Russia's exports. Shifting to the Russian Arctic the center of gravity for oil and gas production and for the extraction of other minerals will inevitably lead to an increase in human impacts on the ecology and population of the northern areas. Such a shift will expose greater numbers of people to the natural hazards present in the Arctic, and subject the region to greater technological risks.

Mr. Chupriyan acknowledged that global warming is creating new threats to the security of the population and territory of the Russian North, particularly in connection with the retreat of the permafrost zone. Global climate change and increasing human impact on northern ecological systems will lead to the rise of the dangers and threats in northern territories, among which are: an increase in the frequency and magnitude of floods, an increase in the number and strength of hurricanes and tornadoes, the breakout of massive forest fires and a fire-danger season of increased duration in most of the

northern territories. The Deputy Minister also pointed out that the accelerated melting of snow in the mountains, glaciers, and polar ice may lead to flooding of large coastal areas and destruction of seashore areas. This in turn can lead to a breach of the infrastructure of a large number of settlements. Degradation and melting of permafrost will result in hazards such as landslides on thawing slopes, surface subsidence due to soil compaction, and weakening of the foundations of buildings and structures. In addition to these natural hazards, the development of mining and processing industries - notably mining - and the transport and processing of hydrocarbons may lead to an increase in the frequency of technological and environmental emergencies arising first from fire, then explosions and oil spills. Potential radiation-related dangers may arise in connection with flooding in the area of the Barents and Kara seas which have experienced the increase of radioactive waste stemming from nuclear weapons testing at Novaya Zemlya and the operation of the Kola and Bilibino nuclear power plants during the last 50-60 years of last century.

Deputy Minister Chupriyan noted that the Russian Emergency Ministry has taken measures to help mitigate the possible effects of radiation emergency on the ecological system by continuing to inspect solid radioactive waste burial sites. In addition, Emercom has organized and carried out exercises at nuclear power plants and has taken measures to protect the population in the initial period following severe accident at nuclear power plants in the worst weather conditions.

The Northern Sea Route is an important channel and a vital area for the northern and Arctic regions of Russia. It is a key link to establish commercial use of this international sea transport route. It is the shortest way out of European countries and Russia and into the booming markets in Asia-Pacific region. However, shipping in arctic conditions increases the potential for emergencies, with the potential of not only death, but also dangerous spills of petroleum products. After assessing the hazards and risks of emergencies in connection with the industrial development of the region, the possible consequences of global warming, and the capabilities of the state system of prevention and liquidation of emergency situations (SPARES), Russian emergency authorities concluded that there is a need to create a modern safety system for the northern territories that ensures the maximum reduction of possible risks to the population from natural and technological disasters by:

- Establishing a system for monitoring and predicting the occurrence and the dynamics of hazards created by geophysical, geological, meteorological, hydrological, ecological and socio-economic phenomena and processes;
- The establishment of warning systems, using modern information technology and communications, to inform the population of the northern territories about an impending emergency;
- The establishment of the response forces - including mobile units - in each of the regions of the Russian Federation to address the emergence of new threats to the northern territories and the specific conditions in each of the territories, in order to increase the number of response forces available for emergencies, and to improve response force distribution and composition as well as their equipment;
- Organizing and alerting rescue forces in the sea lanes in order to conduct search

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- and rescue operations;
- Creation of storage bases for rescue and firefighting equipment placed in key locations in northern regions to increase the speed of rescue operations;
 - Refining techniques and methods of using the response forces in the prevention and elimination of possible emergency situations in the northern territories;
 - Developing special technologies for rescue and special rescue and firefighting equipment and devices that can operate in arctic conditions.

The Deputy Minister mentioned that the Russian Ministry of Regional Development has prepared a draft Strategy for the Development of the Arctic zone of the Russian Federation and national security in 2020. This draft strategy includes proposals from the Russian Ministry of Emergency with tasks to improve the protection of critical facilities and enhance rescue operations and the readiness of government authorities. Emercom has prepared cost calculations and justifications for the establishment of specialized rescue centers.

The purpose of establishing a system of specialized rescue centers is relevant to prevention, preparedness and emergency response because its purpose is to provide comprehensive operational assistance to persons in distress in the polar regions of the Russian Federation, along the Northern Sea Route, and in the adjacent territories of foreign states in accordance with international agreements.

Mr. Chupriyan explained that given the extent of territory, natural and climatic conditions of the region and the level of its development, the centers would house mobile operational capabilities to respond to emergencies, based in the most developed towns in the region with the most developed transport and telecommunications infrastructure, and considerable human resources. The positioning of the rescue centers takes into account the most likely locations of emergencies and the speed of rescue and emergency response. In total, the establishment of 10 rescue centers has been proposed in: Murmansk, Arkhangelsk, Naryan-Mar, Salekhard, Dudinka, Tiksi, Pevek, Uelen, Anadyr, and Ust-Kamchatsky. Furthermore, rescue centers should ensure a state of constant preparedness and emergency response to any emergency situation in the region. The federal budget will provide for the establishment of rescue centers that serve as regional control centers in complex crisis situations occurring in the Nenets Autonomous District, in the Taimyr municipal district of the Krasnoyarsk Krai, and the Khanty-Mansi Autonomous District. The establishment of these centers will allow monitoring of critical facilities and supplies; collecting, compiling, analyzing and storing of information on the threat or emergency situation; sending information to subscribers using any type of communication, as well as calculating forces and resources needed for rescue, and warning and informing the public about emergencies.

In order to maintain the readiness of SPARES response forces to respond to emergencies in the Arctic, the Russian Emergency Ministry conducts training drills and international exercises. In 2008, an international exercise was held and was observed by representatives from several countries (Norway, Sweden, Finland, USA, and Canada). This exercise demonstrated the capabilities for disaster recovery of by Emercom of Russia and LUKOIL in the Varandey oil-loading terminal and also tested the interaction of response forces at the regional level, as well as in the production systems and

ecological monitoring terminals.

In September 2009 the international exercise "Barents Rescue," was held in Murmansk where Norway, Sweden, and Finland took part in rescue missions along with the rescue service of Russia. The level of training of the forces, as demonstrated by the exercises, reaffirmed Russia's commitment to effective response to environmental and technological disasters in the Arctic.

In April 2010 the Russian Emergency Ministry and the Border Service of Russia participated in joint training at the base of the Border Guard Service Nagurskoe of Franz Josef Land. The training focused on coordinating activities during search and rescue operations.

The Russian Federation's priorities in the Arctic are to increase efforts among the eight Arctic States by creating a unified regional system for search and rescue, to prevent and prepare for man-made disasters, and to increase the coordination of rescue forces. Thus, to ensure integrated security in the Arctic region, the Russian Ministry of Emergency has made working on the following tasks a priority:

- Creating new and improving existing emergency centers;
- Developing and improving monitoring technologies to detect possible natural and manmade disasters;
- Improving cold weather rescue and emergency response technology;
- Creating and developing rescue tools and equipment designed to operate in low temperature conditions.

3. Opening of Meeting, Introductions, and Approval of Agenda

3.1 Opening of Meeting

Ms. Ann Heinrich, EPPR Chair, convened the meeting by welcoming everyone and thanking all for participating in the meeting. She thanked EMERCOM for the warm welcome and for its support to the EPPR Work Group, noting that the emergency response priorities that the Deputy Minister of EMERCOM had identified were very important to the work of the EPPR WG.

The EPPR Chair reported that participants were provided with copies of the revised EPPR Strategic Plan that was approved by Senior Arctic Officials in April 2010. Meeting participants also received copies of EPPR brochures and pamphlets that were originally produced for the Tromsø Ministerial and were updated for distribution at the COP 15 Meeting in Copenhagen in December 2009.

3.2 Introductions

Members of each delegation present introduced themselves to the group.

3.3 Approval of Agenda

The EPPR Chair requested some amendments to the Agenda of the meeting to

accommodate availability of speakers. The meeting accepted the amended Agenda.

3.4 Update on Arctic Council Activities

The EPPR Chair provided an update on the recent activities of the EPPR WG and of the Arctic Council. She thanked Ambassador Vasiliev for his intervention on EPPR's behalf at the SAO meeting in November 2009 by inviting Igor Veselov to brief the SAOs on the Barents Rescue 2009 international exercise and the Arctic Rescue conference sponsored by the Russian Federation in Anadyr.

The Chair represented EPPR at 5 Arctic Council meetings attended in March 2010: Arctic Spatial Data Initiative; Heads of Working Groups meeting; SDWG Roundtable; PAME Arctic Ocean Review meeting; and PAME Working Group meeting. Allison Saunders, EPPR Secretariat also attended these meetings.

- The SDWG Roundtable offered EPPR an opportunity to brief another Arctic Council work groups on the work of EPPR. SDWG's focus for the meeting was to clarify the need for and the use of social data. Although SDWG is not currently conducting any projects in which EPPR could engage, the meeting was nevertheless beneficial because of the information exchange between the two WGs.
- The Chair briefed the group on the Arctic Oceans Review (AOR) project and meeting held on March 2, 2010. The Chair reported that there is a lot of synergy between PAME's work on the AOR and EPPR's work and that EPPR agreed to participate in order to add the emergency dimension to the report. George McCormick, Canada's EPPR HOD will lead EPPR's effort to contribute to this project.
- EPPR's revised strategic plan and operating guidelines were approved in April 2010, at the SAO meeting in Ilulissat, Greenland. The operating guidelines required a small amendment in order to separate the work plan from the strategic document. The work plan will be updated after each meeting.

Other updates provided during this session focused on the SAR Task Force and the Heavy Fuel Oil project undertaken by PAME.

SAR Task Force Update - Ambassador Vasiliev

Ambassador Anton Vasiliev reported that the SAR Task Force was working on the Arctic Council's first pan-Arctic, multi-lateral binding instrument and he credited EPPR for originating this idea. The Russian Federation and the United States lead the effort. The SAR Task Force has met 3 times and has worked on draft language proposed by the Russian Federation. The Russian Federation has proposed that the SAR agreement be a legally binding agreement. If the SAR Task Force efforts succeed, this effort will yield the first legally binding multilateral instrument in the history of the Arctic Council. All 8 Arctic countries are participating and working on the instrument by consensus. The next meeting of the Task Force will be in December, 2010 in Finland. The goal is to have an instrument ready for signature for the 2011 Arctic Council Ministerial meeting in Greenland. Ambassador Vasiliev observed that this agreement is not an end in and of itself, but that it is a basis from which countries should develop appropriate SAR

capabilities for the Arctic. Countries will need to consider activities that address the efficient use of response forces, and each nation should contribute to the complex undertaking of Arctic SAR.

The Ambassador thanked all the states for their hard work and for remaining flexible in order to make progress. Ambassador Vasiliev thanked EPPR Working Group, Emercom, the Komi Republic, and the City of Vorkuta for their attention and opportunity to present at the meeting.

Mr. Ole Bjerkemo thanked the Ambassador for the SAR Task Force briefing and asked whether EPPR would be involved in future SAR activities, or if a special group would be established in order to provide follow up on SAR to the Arctic Council. Ambassador Vasiliev responded that EPPR will be involved in SAR work and activities. Although he could not disclose the substance of the SAR agreement, he emphasized the need for EPPR to consider future information exchange on SAR. He stated that this agreement is a serious achievement and that its execution would not remove SAR activities from EPPR.

PAME Heavy Fuel Oils Project

Ole Bjerkemo provided an update on activities related to the PAME project on Heavy Fuel Oils. A PAME interim report will be produced by August 15, 2010. Mr. Bjerkemo reported that PAME would discuss this report in September at its meeting in Washington, D.C. with a final report to be delivered by December 31, 2010.

4. Work session related to the Arctic Marine Shipping Assessment recommendations

Mr. Bjerkemo presented an update on the activities of EPPR's AMSA Correspondence Group, which is considering activities that EPPR can undertake in response to the AMSA Report recommendation.

4.1 Results from Correspondence Group teleconferences and discussion document presentation

Mr. Ole Bjerkemo, the AMSA Correspondence Group (AMSA CG) lead, reviewed the November 2009 EPPR meeting decision to establish a correspondence group, led by Norway, with one representative from each country to consider the AMSA Report recommendations that fall under EPPR's mandate. He also provided a summary of the activities which the AMSA CG has engaged in to implement the decision.

The AMSA CG conducted four teleconferences and recommended that EPPR undertake revising one of its published reports, the "Analysis of the Adequacy and Effectiveness of Existing Arrangements and Agreements" (2000) (the Gap Analysis) to reflect new risks, to include an analysis of whether existing or pending international agreements and

regimes address these risks, and to make any necessary recommendations. The AMSA CG also recommended that EPPR update the EPPR report titled “Environmental Risk Analysis of Arctic Activities” (1998) and the accompanying “Risk Analysis Matrix,” last updated in the year 2000. The Chair circulated both recommendations to EPPR members in May 2010 and there being no objections, the recommendations were deemed approved.

The AMSA CG discussed and developed ideas to update the content for the new report and provided draft language for the EPPR to consider during this meeting. Ms. Maria Holleran Rivera, Head of the United States delegation, stated that, as a contribution of the United States to EPPR, the University of Alaska is under contract to further develop the revision of the “Analysis of the Adequacy and Effectiveness of Existing Arrangements and Agreements” the Environmental Risk Analysis of Arctic Activities” (1998) and the accompanying “Risk Analysis Matrix.” The documents will be circulated prior to the November 2010 EPPR meeting for comments with the intention of conducting final discussions and finalizing the documents at the November meeting. The Chair added that the document produced during this meeting would inform the work undertaken by the University. Mr. Bjerkemo thanked the US for the offer to do this work.

4.2 Review of the revised Analysis of Agreements (Gap Analysis)

The group reviewed the Gap Analysis and Mr. Bjerkemo asked for comments to the document sections.

First participants noted that the group should check on the status of the Arctic Offshore Oil and Gas Guidelines report that PAME is producing for the Arctic Council and update our report accordingly. The US mentioned that in light of the oil spill in the Gulf of Mexico there may be additional comments to be considered regarding risk in Section B of the report, titled “Approach.”

When discussing Section D, “Existing Agreements,” participants suggested that the report be organized by theme. For example: separate sections should be utilized for discussions of radiation versus oil and hazardous substances, as well as by geographic designations or by agreement type (i.e., international conventions and regional agreements). The comment of using the Arctic Guide as a reference raised a good question: the difference between the Arctic Guide and the Gap Analysis. It was clarified that the Arctic Guide is the product where each country outlines its response structure, organization and procedures and is updated on an as-needed basis by each country. The Gap Analysis—a project undertaken in the 90’s--provides a broader analysis and is updated less frequently. Participants agreed that multilateral and bilateral arrangements should be included in the report.

In Section E, “Countries’ Findings,” Canada suggested that the section could be structured into subsections on preparedness, prevention and response findings by country. Section F, “International Waters” should contain a reference the long-term shipping assessment mentioned in AMSA. Canada suggested the section could be titled “AMSA Recommendations Follow-up.” Furthermore, the group should consider tying the

sections and titles closer to those in the AMSA report because it is a document that has already been vetted by the Arctic Council.

The US delegation mentioned the addition of risk mitigation suggestions to Section G, "Risk Mitigation and Success Stories." Based on the events unfolding in the Deepwater Horizon disaster, there was a rationale for revisiting the oil and gas guidelines and the impact of undersea oil production, highlighting the lessons learned from the oil spill in the Gulf. Mr. Robert Pond of the United States mentioned that the U.S. will review these items in the next year or two. Some members cautioned that the document should not refer to country practices as success stories, but rather identify these as mitigation measures, accordingly the title of the section should be changed. The Chair added that the report should mention the success applicable to the radiation mitigation aspect of this section- that all 8 nations were signatory to radiation emergency treaties and part of the IAEA Response and Assistance Network.

Finland noted that Arctic Council had not issued EPPR's mandate on natural disasters at the time the original document was developed, but that it should now be included in the update, and requested they be included. Mr. Walter Parker from the U.S. delegation referenced the SDWG's follow-up of AMSA report outcomes and asked the group if the report would address needs of Arctic inhabitants. Participants favored adding the natural disaster dimension to make the report more thorough and address concerns of inhabitants. It was decided that the report should not identify gaps in infrastructure other than including a section with general text and broad recommendations. Representatives from the Russian Federation said that the group should work within the time frame that exists and that the report needs to clearly define the use of the words "risk" and "hazard." This clarification would provide a quantitative definition and make the first part of the document clearer.

Canada questioned whether the risk assessment methodology used in the original report should be changed, as the methodology is dated. After some discussion participants decided to retain the methodology because a more complex analysis would not necessarily lead to better results. Finally, the group agreed that a revised draft would be distributed for discussion and final review at the fall EPPR meeting to be presented in time for Ministerial document review.

4.3 Consideration of the Environmental Risk Assessment Matrix and next steps

The AMSA Correspondence Group also recommended the revision of the report "Environmental Risk Analysis of Arctic Activities" (1998). The Correspondence Group recommends that the *Environmental Risk Analysis* be forward leaning and based on estimates of current and future activities in the Arctic, as well as actions those individual states have taken to mitigate existing and new risks. Updating the *Environmental Risk Analysis* will provide a basis for revised recommendations on infrastructure and safety mechanisms.

To date, Norway and Canada have submitted their risk matrices. The United States offered to compile the information from the risk analysis and submit a draft report for EPPR to review. Finland, Sweden, Denmark, Iceland, the United States, and the

Russian Federation will revise their respective risk matrix and send results to the Secretariat by July 9, 2010.

4.4 “Opening the Arctic Seas” Review of University of New Hampshire workshop report

George McCormick used the matrix of recommendations prepared by Canada to lead the discussion of the recommendations from the workshop report, “Envisioning Disasters and Framing Solutions.” The group discussed whether to exclude or keep individual recommendations as potential topics of interest to inform future EPPR projects or activities. The recommendation discussion resulted in the following recommendations as “Of Interest” to EPPR. Others were categorized as “Need More Information” or “Not Relevant.” Discussion of this topic was begun in the plenary session and concluded during the Track Two, Oil Break-out Session. Please refer to the discussion at page 34 of this report for the outcome.

5 New Project Proposals

The following section contains information on proposals for new activities and projects.

5.1 Potential projects in conjunction with the Environmental Studies Research Fund

Mr. Norm Snow of Canada provided the group with background on the Environmental Studies Research Fund and the types of studies underway. He indicated that review from other countries would be welcome to provide “ground truth.” The United States added that they would appreciate any visibility on the projects that are of interest and would consider potentially partnering with Canada as part of an EPPR effort. Norway echoed these remarks and asked if Canada would be willing to update the group on the projects at the meeting in November.

Mr. Snow agreed to provide an update on ESRF studies at the next meeting and volunteered to provide the Secretariat with an electronic copy of ESRF reports as they become available.

5.2 Automated Questionnaire for Assessing Spill Response Preparedness

At the 2008 meeting in Luleå, Sweden Mr. Mark Meza from the United States Coast Guard provided a briefing on a U.S.-based automated questionnaire for assessing spill response preparedness. Mr. Meza proposed expanding this database to include metrics and questions based on international standards or standards from other governments to make this a tool that is available for use by the international community.

At the November 2009 meeting it was decided that EPPR would determine if there is usefulness in expanding this product for international use.

Though accessibility had prevented participants from testing the program, the Automated Questionnaire is on the EPPR website. Should any country wish to continue

development of this tool they are welcome to propose this to EPPR in the future. The program is accompanied by a document containing the rationale for each question that is included in the existing database.

5.3 Search and Rescue Project Proposal

Mr. Benjamin Strong from the U.S. Coast Guard presented the Arctic Automated Mutual Assistance Vessel Rescue Network (AAMverNet) proposal.

As background, Mr. Strong explained that 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. This project will survey Arctic nations to 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.

Mr. Bjerkemo commented that based on pending advanced technology of long range detection (LRIT) capabilities it remained to be seen if Norway would join this effort. Though he was not in a position to say yes, Norway would for the time being investigate joining this proposal. Mr. Veselov commented that this seemed like a very interesting system and proposed to work with United States on this project. The United States and the Russian Federation will have a discussion on the possibility of collaborating in this area and will provide a report to EPPR with a decision/outcome. Canada agreed that the proposal for the US and Russia to start cooperation under this proposal was a good path forward and the decision was made to proceed with this project as described.

5.4 Prepositioning of Emergency Equipment

Dr. David Barnes from the U.S. delegation briefed the proposal to survey oil spill response resources and capabilities of Arctic States. The United States National Oceanic and Atmospheric Administration (NOAA) currently has plans to develop an Environmental Response Management Application (ERMA) for the U.S. Arctic. Under this proposal the U.S. would conduct a survey of the type and location of oil spill response equipment, logistical facilities, and personnel in participating Arctic countries. The information collected would be used to map and describe resources available for oil spill response.

The U.S. would develop data management and delivery structure to which other countries could contribute. The desired map of equipment locations and logistical facilities is a layer within ERMA that can readily be separated out in a form appropriate to which all Arctic countries may contribute. Dr. Barnes provided screenshots of a demonstration website which included various products: a regional map of emergency response locations; a display of areas of vessel traffic; and weather and buoy observation data. The maps and products developed in this activity would be drafted in hardcopy and electronically.

Mr. Pond commented that this would be a very useful idea and tool but that there would need to be criteria used to report this information. He informed that currently USCG resource response teams work together with the private sector to map response assets and to share information. Canada supported this idea and asked if there was specific information that should be collected. Dr. Barnes said that the project would start small and move forward.

Mr. Trigatti (Canada) commented that though each country had this information and could share it the challenge would be to account for mobile response assets. He endorsed the inclusion in the short-term of transboundary response equipment and proposed the project move forward with a narrowed focus on mobile versus stationary assets.

Mr. Bjerkemo from Norway commented on a similar system in the Svalbard Islands and mentioned that the challenge of any database project is to keep it updated. He went on to say that if all countries contributed to this project it would be better to have maps updated back home based on web map services (WMS) instead of in a database. Canada supported the project but there are technical details to consider such as displaying the resources available on platforms or vessels.

Dr. Barnes concurred and validated the concern on how to keep this product updated. Mr. Bjerkemo reminded the group that the results of this project should be compared to the work by the Arctic Spatial Database Initiative. Mr. Veselov raised the issue of the database in the discussion and mentioned that Russia was establishing a database like this for other means. The group confirmed that EPPR should move forward with the pilot study. Canada and the United States will conduct a joint pilot program to assess regional capabilities and will report back to EPPR.

6 Country Updates

The EPPR Chair noted that the next series of presentations would cover updates on from individual nations.

UNITED STATES

Mr. Pond briefed the meeting on the Deepwater Horizon event. Mr. Veselov asked what the U.S. Coast Guard needed from a hardware viewpoint. Mr. Pond responded that there is sufficient equipment for the response; however the perception of the public is that not enough is being done. Mr. Pond responded that to date 1 million gallons had spilled. Mr. Parker added that all new offshore and scheduled drilling is stopped, the President has requested more research, and that Alaska is heavily involved in the Gulf response and sending down some equipment. He predicted that there would be a great deal more to say at the next meeting.

Mr. Parker provided an update on the newly published SINTEF report Joint Industry Program on Oil Spill Contingency for Arctic and Ice Covered Waters and the associated

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workshop in Alaska. The report mentioned chemical herders and improvements in burning. The team that produced the report is closely involved in the Gulf and this event interrupted the workshop follow up on people in the affected area. The report has not changed minds among some decision makers in Alaska. Mr. Parker noted that more money was needed for research which might be spurred by the Gulf of Mexico incident and noted that the country updates were providing information on ongoing good work.

SWEDEN

Sweden's Head of Delegation needed to depart early and was not able to present the country report.

RUSSIAN FEDERATION

Mr. Tershkov from the Russian delegation noted that Mr. Igor Veselov would deliver the country update when he presents on the conclusions from the Anadyr Conference on the role of scientific studies with rescue plans. He mentioned that underway were two topics for studies and 10 new rescue center locations based on infrastructure and risk assessments. Some items they are working on include emergency forecast and notification to the public, and firefighting without water using non-aqueous solutions.

NORWAY

Norway reported on its participation in the Exercise Barents 2010 which took place on June 9. Mr. Bjerkemo discussed the coordination of two scenarios, SAR operations and oil spill response (OSR), as well as the transition phase between the two. Some of the logistical and technical aspects of the exercise included information exchange, clearance for Russian aircraft and vessels to enter Norwegian territory, clearance for Norwegian aircraft and vessels to enter Russian territory, and the use of the SITREP (Situation Report) format. Detailed objectives for SAR and OSR tasks were exercised as described in the training protocol.

Norway has implemented regulations concerning the use of heavy fuel oil (HFO) in the protected areas of Svalbard. These regulations became effective as of January 1, 2010. The recent events surrounding the oil spill in the Gulf of Mexico has driven Norway to consider a Norwegian Management Plan for the Barents Sea, compare different aspects of the Gulf accident to Norwegian waters to include drilling, and consideration of the consequences for a similar incident to occur in the Barents Sea, and the adequacy of oil spill response measures.

Mr. Bjerkemo also discussed the agreement between Norwegian Radiation Protection Authority (NRPA) and Norwegian Coastal Administration (NCA). The organizations will prepare an agreement to clarify roles and responsibilities based on the increased traffic of ships transporting radioactive fuel along the Norwegian coast. They recognize that managing an incident with such ships might be challenging.

CANADA

Canada reported that it had instituted a moratorium to prevent drilling in the Beaufort Sea region until 2014. Additionally, they are starting a comprehensive review of offshore

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drilling safety procedures. Ms. Bonnie Leonard presented brochures on the Dash-7 Arctic Surveillance airplane that has been used for near-time reporting and has helped reduce the number of spills and on the Dash-8 surveillance aircraft currently assisting in the Gulf of Mexico. Mr. Larry Trigatti informed that there were two exercise initiatives undertaken in the North with the US. The first exercise took place in March 2010 and the final report from this exercise will be presented at the November EPPR meeting. The second exercise will be held in Resolute later this year and will be a whole-of-government exercise held in conjunction with Defence Canada's military logistics support exercise. Another activity pertinent to EPPR is the distribution of community-sized kits with equipment to improve community response capacity to more frequent, smaller-scale spills. Lastly, Mr. Trigatti expanded on a point made by Mr. Snow that Environment Canada will begin an effort to conduct shoreline assessments and data collection using satellite imagery. This data collection and assessment will first be conducted in Resolute (in conjunction with the exercise which will take place there), then in Beaufort and the McKenzie River Delta among other locations.

The Canadian Head of Delegation, Mr. George McCormick, noted that from November 30- December 2, 2010 there will be a Canada-U.S. joint oil forum. Mr. Snow added to this statement and requested contributions for themes, ideas, and speakers for the forum be sent to him for inclusion.

Mr. Frank Pokiak from the Inuvialuit Game Council discussed the importance of first responders in communities. He stated that in relation to oil and gas activities near the Beaufort Sea and other locations it is a commonly held view that communities are supposed to be the first responders. However, in his experience, no one is trained to be a first responder. He made the point that unless there is training there should be no drilling in the Arctic. Indigenous communities rely on this working group to make sure these communities are protected in some way. With growing activity and interest in the Arctic, Mr. Pokiak is concerned about everyone that lives near and depends on the ocean for life and hopes we learn from what is happening in the United States. A lot of questions are concerns that have existed since the beginning and have not been answered.

INDIGENOUS PEOPLE'S SECRETARIAT

Mr. Erik Gant of the Indigenous People's Secretariat thanked the Chair for the opportunity to address the group. Mr. Gant said that there was no history of Permanent Participants taking part in EPPR activities and this working group has the least PP participation. He mentioned that it was his first EPPR meeting and that it is not always easy to have indigenous groups participate in meetings because of funding. He mentioned that IPS does not represent the PPs and that because it is funded IPS is able to attend larger Arctic Council events, SAO, and ministerial meetings. For a meeting like this he suggested it would make sense for RAIPON to be included.

Mr. Gant referred to the UNH recommendations matrix that EPPR considered the previous day and pointed out that there did not seem to be Permanent Participant contribution with respect to the recommendation related to integrating Indigenous Peoples and their concerns.

The other issue from the matrix considered the protection of cultural heritage sites but he stated that CAFF and RAIPON had addressed this recommendation. Mr. Gant suggested that EPPR follow a step from PAME and ACAP and produce a fact sheet that addresses issues from an Indigenous perspective. The Chair thanked Mr. Gant for his insight into the work of the other groups and for the idea of using the matrix to follow up on the issues he pointed out.

WWF

Aleksey Knizhnikov from WWF Russia described their work to build a Russian field rescue team. His organization requested experts from the European community to assist with creating a field camp and building the capacity for this work in Russia. He mentioned that WWF has an interest in international oil spill response cooperation. WWF has compiled research on the limited technology to clean up an oil spill. This document can be found at this link:
<http://www.worldwildlife.org/what/howwedoit/policy/WWFBinaryitem16133.pdf>. Mr. Knizhnikov urged EPPR to consider sharing research and implementing monitoring programs and stated that a press release would be issued to demonstrate WWF's desire to support EPPR.

9 Ongoing Projects

9.1 Status of the BoHaSa project including preliminary findings and proposed way forward

Mr. Ole Bjerkemo, the EPPR vice Chair, facilitated a group discussion of the completed draft of the report "Behavior of HNS spilled in Arctic Waters" (BoHaSA). The objective of the BoHaSA Project is to gather and synthesize current knowledge and expertise on the behavior of hazardous substances in Arctic waters in order to promote the development and use of technologies and working methods that improve the ability to respond to accidents involving such substances. Mr. Bjerkemo presented some details on the report's organization and presented some questions to the group.

The report outlines some of the risks present in the Arctic associated with oil and HNS shipping activities as well as the international transportation protocols and conventions which apply to these substances, past incidents involving these substances, and summarizes shipping trends. The main body of the report contains a summary of what is known about the behavior of various spilled substances, HNS and oil, in Arctic conditions. Some of the conclusions mentioned in the report are:

- Responding to spills of oil or bulk HNS in the Arctic regions will be a formidable challenge.
- In some circumstances, Arctic conditions might aid oil spill response rather than hinder it.
- Oil spill response equipment such as booms, skimmers, and dispersant spraying systems need to be modified for use in Arctic conditions.

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- The often preferred oil spill response of mechanical containments booms and recovery with skimmers is more difficult to carry out in partial ice cover conditions.
- In-situ burning is a proven response technique to oil spills in ice having been studied in detail in Canada and elsewhere since the 1980s.
- The use of dispersants as an oil spill response technique has been found to be feasible in situations where ice is present.

Mr. Bjerkemo proposed that EPPR decide the appropriate length of the report, how to handle the printing and layout of the report.¹ He proposed that the group discuss and review:

- The structure of the report
- The balance between HNS and oil
- Possible additions or items that could be deleted or changed
- Illustrations and pictures
- Proposed conclusions and recommendations

Participants were impressed with the development of the report and commented that the length of the document was appropriate and that the HNS and oil sections did not need to be expanded. Suggestions from the floor are summarized below:

- Include a discussion on the complexities of HNS response versus an oil response
- Explain that HNS response is difficult and varied, which is why the HNS section of the report will be longer than the oil spill section
- Consider expanding discussion of warning or monitoring systems for chemical incidents and how to deal with chemical spills afterwards
- Include examples from the Arctic be added to Table 3.2: *The 20 largest spills from oil tankers (plus Exxon Valdez), ITOPF 2010* of the report.
- Include an executive summary of the report
- Include information on production spills (underwater pipeline risk and condensate spills)
- Chapter five may need to be updated by including some information from the Deepwater Horizon accident.

Mr. Bjerkemo specifically requested thorough review of chapter four which contains the information requested by Ministers. Mr. Robert Pond of the United States will supply comments to the report and updates on the Deepwater Horizon response effort. Mr. Bjerkemo thanked everyone for the useful comments and stated that he will take the issues back to the authors.

Mr. Bjerkemo then asked the group to consider the thirteen conclusions to determine if there were others to include or some to delete. Canada commented that a conclusion speaks to not having a risk assessment though EPPR is actively pursuing this as a project. This raised the question of what will we do as a group. Participants will also consider the inclusion of a risk assessment update and an executive summary. Because the document has just been completed, it needs to be peer-reviewed.

¹ The discussion also concerned a letter from ARCOPOL offering to enter into future cooperation with EPPR on oil spill issues. No decision was taken on this proposal.

Mr. Bjerkemo proposed that the next steps are to update the draft report based on the discussions in this meeting and that the group should hold a workshop or meeting with oil industry in the fall 2010. The EPPR Heads of Delegations have been sent the report, and they are to return the report to Ole with comments submitted by August 1. The final draft will be circulated to EPPR 30 days prior to the November 2010 meeting so that final approval can be reached in accordance with EPPR's Operating Guidelines. This deadline would ensure the final report would be completed in time to be submitted to the May 2011 Ministerial Meeting. Canada suggested that EPPR consider submitting the report to the International Oil Spill Conference.

9.2 Arctic Rescue Update

Mr. Igor Veselov presented on the Arctic Rescue family of projects to prevent and respond to an emergency in the Arctic. The "International Conference on the Prevention and Elimination of Emergency Situations in the Arctic," was hosted by Russia in August 2009 in Anadyr, Russia as part of Russia's Arctic Rescue project for EPPR. The purpose of the conference was to increase domestic and international awareness of emergency response issues in the Arctic and to unite efforts to increase prevention, response, and recovery capabilities. The conference was attended by 68 people from 5 countries and one International Organization. The Anadyr Conference afforded participants an opportunity to discuss issues related to emergencies in the Arctic. These issues are of great importance because the likelihood that the number of emergencies in the Arctic will increase as a result of anticipated changes in the Arctic's climate, which in turn is expected to accelerate development of Arctic resources. The Arctic's harsh environment makes emergency situations in the area more complex. Thus, whether emanating from natural or man-made causes, increased response efforts will be required. Seventeen recommendations were developed by the participants. The recommendations are available in the Joint Report on the EPPR Website. Russia is forwarding the recommendations to the appropriate Russian Ministers for consideration of further action.

9.3 Radiation Projects Update

Mrs. Maria Holleran Rivera presented an update of EPPR's radiation projects.

Source Control

The purpose of the project was to introduce risk assessment techniques as a standard operating procedure for industrial facilities. The risk assessment was used to identify and rank hazards discovered during facility operations. During the first phases of the source control project, ongoing since 2000, a Risk Assessment Methodology was developed and applied to radiation and chemical hazards present in industrial facilities. This process incorporated the Environmental Management System ISO-14001 principles for continuous improvement. The outcome of this analysis was a set of recommendations for preventative and corrective actions and activities that when implemented increase prevention and enhance safety. As a result of project implementation at each facility described below, the risk assessment methodology was verified and updated to reflect the particular hazards posed by facility operation. Implementing the risk assessment methodology at each of the facilities enabled a more

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effective identification of particular hazards posed by the facilities' operations, and enhanced prevention and preparedness.

The fourth phase of the project, conducted from 2009 to 2010, extended the operational use of Risk Assessment Methodology to a new area – transportation of radioactive sources by motor vehicles. The Scientific and Research Institute of Atomic Reactors in Dimitrovgrad produces and transports medical radioactive sources that emit ionizing radiation. For this phase of the project, the Risk Assessment Methodology was applied to the source transportation activities of the Institute. As with other source control projects, risk assessment and analysis was followed by development of risk mitigation strategies that were incorporated into the facility's operational procedures.

During the final stage of the project, scientists identified the risks of accidents and radiation impacts on transport personnel and the general public under a number of scenarios involving transportation accidents. Seven of the most hazardous scenarios were selected for the conduct of the full risk assessments. For example, one scenario assessed is the consequences resulting from a severe transportation accident involving a fire and a rupture of radiological source shipping containers resulting in the release of radioactive substances into the environment. As a result of the project, Russian Federation personnel developed recommendations for better risk management and risk reduction measures for future transportation activities. The Institute was thus able to implement Risk Assessment Methodologies and preventative measures proven to be successful in the safe transportation of radiological sources.

This project has resulted in significant enhancements to risk assessment methodologies in use within the Russian Federation. Both chemical and radiation hazards were extensively surveyed, and the entire process of assessing risk was meticulously examined using best industry practice, including the ISO 14000 risk assessment methodology. As a result, systematic improvements have been institutionalized in many facilities across Russia. The final phase of the project, addressing the transportation of hazardous materials, has particular application to the EPPR since radioactive materials are transported in the Russian Arctic region. The improvements achieved with the Source Control project significantly enhance emergency preparedness in that region.

This project was completed in May 2010. A final report on the risk analysis of the Scientific and Research Institute of Atomic Reactors in Dimitrovgrad will be submitted to EPPR in June, 2010. Previous reports on Source Control project are available on EPPR's web page.

Radiological Response Exercises

Exercise "Arctic-2010" will be conducted on July 28-29, 2010, at the Federal State Unitary Enterprise (FSUE) "Nerpa Shipyard" in the Murmansk Region of the Russian Federation. The purpose of the exercise is to assess consequences and response capabilities to a radiation emergency in the Northwest region of Russia.

The exercise scenario involves the simulation of a radiation accident aboard a decommissioned nuclear submarine at the pier of the "Nerpa" Shipyard. The simulated

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accident will occur while workers are removing gas from the pressure vessels of the submarine's vacuum systems. According to the scenario the radioactive release will travel outside of the Shipyard site. The extent of the simulated plume will require involvement of municipal and regional authorities, thus providing an opportunity to test coordination of the response across governmental tiers.

EPPR will participate in the exercise both on the scene at the Shipyard and in Moscow at the Technical Crisis Center of the Nuclear Safety Institute of the Russian Academy of Sciences (IBRAE RAS), which is the organization responsible for developing recommendations for protection of the Russian Federation's people and its environment during a nuclear or radiological emergency. Notifications planned as part of exercise play include notification of Barents region countries and the International Atomic Energy Agency.

The video teleconferencing equipment which the U.S. provided under this EPPR project will be used during teleconferences between the shipyard, and the regional and federal emergency management centers planned to be held during the exercise.

A final report on the exercise and lessons learned will be issued within 3 months after its conduct.

Crisis Center Support

The National Crisis Situation Management Center (NCSMC) of EMERCOM was opened on April 9, 2008, to provide support to the Russian Governmental Commission on Emergency Response to radiological emergency situations and also informational support to the EMERCOM managers in responding to various emergencies, including radiation accidents. Technical Crisis Center (TCC) IBRAE RAS supports NCSMC, providing critical information to EMERCOM needed by decision makers: assessments and forecasts of the consequences of radiation accidents and recommendations for the protection of the public and the environment.

The goals of the project are twofold. The first is to improve the effectiveness of personnel working in EMERCOM's National Crisis Situation Management Center to respond to radiation emergencies through education and training. Second is to enhance TCC IBRAE RAS's ability to provide the expert support that the NCSMC needs during a response to radiation emergencies, using their established framework for prevention and mitigation. Expert support provided by TCC IBRAE RAS includes technical assistance, assessment and analysis of the situation at particular facilities, as well as improving information exchange during the notification and initial internal communication of the incident.

Under this project, new informational and software systems for assessing radiation releases, forecasting the evolution of a radiation release, and mitigating the emergency consequences were developed. The existing systems were expanded to include information about radiation and other hazards present at Rosatom and other Russian Federation facilities where radiation hazards exist, such as industrial facilities, medical institutions, and research institutes. Scenarios of potential radiation emergencies at the facilities were analyzed to determine possible radiological consequences for people and

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the environment. Standard manuals, training and lecture materials on organization and implementation of radiation emergency response for EMERCOM personnel were also developed under the project. The software systems and operational procedures were tested during training sessions for emergency response personnel conducted in the Murmansk Region in 2008 and during the exercises at Balakovo NPP, on October 1, 2009. Work also focused on training expert duty support personnel to better handle accident notification, assessment of accident consequences, assessment of areas where mitigation is needed, and recommendations on how to protect people and the environment. The project is beneficial to the EPPR since the centers support emergency management responsibilities all over Russia, including the Arctic region.

Community Radiation Information

Emergency Public Information activities, exercises, and real events have shown repeatedly that successfully communicating information about emergencies and risk requires training, skill, sensitivity to the intended audience and an understanding of how the message may be received. Some scientific, technical, and administrative terms used in a nuclear or radiological exercise or response are challenging to communicate clearly and thus may be inadequately communicated and subject to misinterpretation. In addition, some terms, in certain contexts, may evoke an emotional response that may create or reinforce an impression with the target audience that the communicator did not intend. In the stress of an emergency response, reference material to assist public information spokespersons and managers who deal with the public and media in using language appropriate to the situation has been shown to be valuable.

To assist public information specialists in communicating to the public and media, EPPR has developed The Glossary for Nuclear Enterprise Information Services. Produced in Russian, the Glossary contains a list of scientific and technical terms commonly used by experts to characterize emergency events and conditions involving radiation. The Glossary explains how to use and "translate" such terms into plain language that can be easily understood by the public. The terms are also annotated with explanatory information to include historical references where relevant, analysis of potential perception of the terms by the public and media professionals, and guidance for the public information specialist on using the appropriate terms under variable emergency conditions. The terms are also linked to the International Atomic Energy Agency's International Nuclear and Radiological Event Scale, a tool used worldwide to communicate in a consistent way the safety significance of nuclear and radiological events.

The Glossary and the experience gained in preparing the Glossary will be used to prepare Emergency Public Information press releases during the exercise at the Nerpa Shipyard in July 2010. Further testing of the Glossary will be performed during information exercises scheduled at the Kalinin, Kursk, Novovoronezh, and Smolensk NPPs during June-September 2010. The final version of the Glossary will incorporate the comments and recommendations received after assessment of their applicability, efficiency and usefulness during the information exercises. The Glossary will be published in December 2010.

Once approved by EPPR, the Glossary will be delivered to Ministers for acceptance at

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the May 2011 Ministerial meeting and posted on EPPR's web page. Mr. Per Postgard from the Swedish Delegation mentioned that they are working on the same type of project regarding translated communications. Mrs. Holleran-Rivera stated that the United States would be able to offer assistance. The Chair addressed the inquiry into the personnel from EMERCOM that received the training guidelines and instructions on reach back capabilities to IBRAE for technical support.

Analysis Capability: Programs NOSTRADAMUS and "TRACE WIN"

This project is aimed at equipping the Russian radiation hazardous facilities including those located in the northwest region of Russia involved in nuclear submarine decommissioning, nuclear ship maintenance, and spent nuclear fuel and radioactive waste management with two software packages TRACE_WIN and NOSTRADAMUS to model airborne radiological dispersion and contamination from an accident, thus, to provide critical information to decision makers. Both software packages include specific information about the site for which it has been adapted, such as the location of the site, relief, electronic maps, and possible radionuclide composition in emergency releases.

The specialized geo-information system TRACE_WIN allows users to quickly simulate, monitor, analyze, and map atmospheric radioactive releases. The main advantages of this model are its simplicity and immediacy. The computation takes a few seconds, so TRACE_WIN is ideally used for the initial (approximate) assessment of the radiation release.

The NOSTRADAMUS package is designed to forecast aerosol and gaseous releases under variable weather conditions. NOSTRADAMUS is an advanced tool and allows users to calculate pollution transport for hundreds of kilometers in changing weather conditions for a source of arbitrary configuration and form, taking into account specific terrain features. Since 2004, these modeling programs have been adapted to the specific features of 14 facilities in Russia and have been installed in their emergency crisis centers.

By March 2010, the computer based assessment and plume modeling tools NOSTRADAMUS and TRACE WIN were customized and delivered to two radiation hazardous facilities: Scientific Industrial Association (FSUE NII NPO) "Lutch" in Podolsk, Moscow Region; and the Research Institute of Devices (FSUE NIIP) in Lytkarino, Moscow region of Russia. Both tools include specific information relevant to the facility: electronic geographical maps, landscape information, and databases on the applicable radionuclides. EPPR participants will be able to observe both tools in action during the upcoming "Arctic-2010" exercise to be conducted in July of this year at the Nerpa shipyard. Application of the NOTRADAMUS and TRACE_WIN during training and emergency response activities enhances the emergency management in the Russian Federation including Arctic region, which makes this project beneficial to the EPPR.

This phase of the project was completed in spring 2010.

Emergency Rescue Team Equipment

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The aim of this project is to upgrade the equipment of the Emergency Response Team (ERT) at the Center of Shipbuilding "Zvezdochka," located in the Arkhangelsk region of the Russian Federation, in order to enhance the level of preparedness to respond to radiation accidents at the facility. Initiated in 2009, this activity was begun following the results of the "Arctic-2008" exercise conducted at the facility, the lessons learned from the exercise, and the recommendations provided by observers. One of the lessons learned during the course of the exercise was that some emergency rescue team equipment was no longer reliable and was difficult to service.

The project includes an analysis of the existing equipment, development of the equipment modernization plan, development of methodological tools for the facility's emergency rescue team, purchase and installation of equipment, and training ERT personnel in the use of the equipment. In 2009, analysis of the existing equipment was performed, the recommendations to purchase new equipment were made, and the list of required equipment was agreed to by the management of the facilities. Purchases under the program included an advanced system for monitoring dose exposures suffered by individual workers, which is comprised of 500 individual dosimeters, dosimeter readers, and specialized software to perform radiation assessment.

Training of ERT personnel in using the purchased system was conducted in February 2010 at the manufacturer's site. In 2010-2011, the radiometric, dosimetric and spectrometric equipment for radiation survey will be tested and transferred to CS "Zvezdochka." Procedures on how to use the equipment in radiation emergencies will be developed, and additional training for the members of the Emergency Response Team at the CS "Zvezdochka" will be conducted. The project will enhance emergency preparedness and response in the Arctic region, contributing to the improvement of the consequence management capabilities at the "Zvezdochka" shipyard.

The project will be completed in 2011.

Radiation Survey Simulation System

This project will develop a training tool for emergency response personnel at facilities at which radiation hazards are present. The Radiation Survey Simulation System is a computer-based training tool which can be tailored to the specific hazards in a particular facility and takes into account the demographics, residential, commercial and governmental developments, and geography of the area around the facility. Trainers can program the simulation system with release scenarios based on the hazards and features of the facility and its surroundings. The students practice devising emergency responses based on the variables presented in the simulation. The Radiation Survey Simulation System generates graphic portrayals of the simulated release, overlaid on realistic maps of the affected sites with applicable data available regarding offsite populations and other environmental features. The system also simulates results of the initial radiation measurements within the first day after an accident at a nuclear facility under conditions of a long-term release of various types of radionuclides. This enables a highly realistic computer model of a response problem to be presented for students to work through to achieve the optimum response solution.

The system is intended to be regularly used for emergency drills and exercises, which

are the most efficient form of preparing to mitigate the consequences of an accident. Through training, the simulation system will contribute to improving the practical skills of decision-making authorities, emergency rescue teams and site personnel in emergency situations.

Such simulation systems have already been installed at four Russian facilities with radiation hazards: Siberian Chemical Combine (Seversk, Tomsk region); Mining and Chemical Combine (Zheleznogorsk, Krasnoyarsk Krai); State Scientific Centre of the Russian Federation ‘Research and Development Institute of Nuclear Reactors’ (Dimitrovgrad, Ulyanovsk region); and Uralsk Electric Chemical Combine (Novouralsk, Sverdlovsk region)

During this last phase of the project the simulation system was installed at two additional Russian facilities: CS “Zvezdochka” (Severodvinsk, Archangelsk Region) and Machine-Building plant JSC MSZ (Electrostal, Moscow Region). Training on the programming and use of the simulations system was an important part of the project.

The project was completed in spring 2010.

9.4 Safety Systems

Mr. Veselov briefed the group on joint exercises that Emercom and Coast Guard of the Russian Federation conducted in Frantz Josef Land from April 16-18, 2010. The objective of the interagency exercises was to test all levels of response to emergency situations in Arctic conditions. One such response was the emergency landing of an aircraft. Responders consisted of a Coast Guard rescue team that searched for and rescued survivors. In this instance responders from Emercom Russia used a parachute to deploy a mobile hospital because it would be impossible to land such a large aircraft in this area. On hand at the exercise brief was Prime Minister Putin. The medical equipment was also air dropped into conditions of about -22°F and transported via snow mobile. Mr. Veselov noted that the Russian Federation used this equipment in Haiti and China to render first aid and medical care during disaster relief efforts. This exercise was the first time this system was used in the Arctic. Emercom is planning for similar exercises in the future with the search and rescue agreement underway such in other regions specific to cold conditions.

The Chair commented that this was an informative brief and asked if there were immediate plans for other exercises. Mr. Veselov responded that they must plan for such exercises and authorities will confirm future international conferences. Currently, Norway is investigating if they can arrange an exercise within the framework of the Safety Systems project in 2011 or later. The Chair also inquired about the Barents Rescue series and the plan for this in 2012. Mr. Veselov responded that Sweden is hosting the next exercise in the series in 2011.

9.5 Managing Cold Situations in Emergency Relief

Mr. Timo Viitanen discussed a joint project within the EU Civil Protection Mechanism aimed at building capacity for cold protection as a part of regional and interregional emergency and rescue services. Norway, Sweden, Finland, Russia, and the European Commission are taking part in this project to discuss ways to shelter local affected

people and to ensure the safety of the first responders during cold-weather emergency situations. He explained that partners are working to establish this consortium by: drafting principles for application, developing the final project plan which includes work packages and pilot projects, establishing the linkage to training, and coming to agreement on the administration of the project.

National financing comes from dedicated budget lines in each country. The consortium includes representatives from rescue and emergency services, emergency response centers, health care authorities and services, education and research institutes, voluntary rescue services, relevant ministries, border guards, defense forces, and police. The areas of focus for work plan activities include a needs assessment to determine the capacity building requirements. Partners also seek to make efficient use of available resources though governments may need to acquire specialized equipment and the necessary education on hypothermia products. The consortium will develop logistical plans which include methods to minimize transportation distances for response assets and develop plans to ensure procedures for assistance are in place by establishing operational action plans and training manuals.

9.6 EPPR participation in PAME's Arctic Ocean Review

Mr. George McCormick, Canadian Head of Delegation, addressed the group regarding EPPR participation in PAME's Arctic Ocean Review. He mentioned that the project slides could be found on the EPPR website in the member's area under the Vorkuta meeting documents. Mr. McCormick leads EPPR's focus group that is contributing information to the AOR in order to add the emergency dimension to the report. Mr. McCormick is assisted by other subject matter experts to include Mr. Ole Bjerkemo, Dr. David Barnes, and Robert Pond. The date of the next AOR meeting will be September 13, 2010, in conjunction with PAME's WG meeting. The Chair inquired into the status of a draft Chapter 2. Mr. Bjerkemo was the only member of the group that had received an updated version through the Norwegian part of the AOR project. Please see the text below for background on this project.

Background:

Following up on the Ministerial mandate to contribute to the AMSA Report recommendations, the PAME Work Group initiated a project called the Arctic Ocean Review (AOR). On March 2, AOR project leaders and writers held a meeting with Arctic Council working group chairs and secretariats in which they solicited the group for information on the status of and trends relevant to the Arctic marine environment and asked for participation from work groups. EPPR WG stated that this participation commitment would require consultation with the Heads of Delegation. EPPR subsequently agreed that the WG could provide a useful contribution to the AOR by adding information on emergency management where relevant in the report.

PAME intends to use the AOR as a means to communicate with Arctic Council Ministers in order to strengthen marine oceans governance in the Arctic through a cooperative, coordinated, and integrated approach to the management of Arctic marine environment. The AOR is also expected to demonstrate the Arctic States' stewardship efforts in the Arctic Ocean. The AOR is not intended to initiate any new assessments, but will produce

a report on the global and regional measures in place for the conservation and sustainable use of the Arctic marine environment.

EPPR considered this to be a significant opportunity to assist another Work Group by providing information in EPPR's area of expertise. By so contributing, EPPR will reach a broader audience with information about emergency prevention, preparedness and response, which are vital activities for the protection of the Arctic. EPPR will also call needed attention to the status of emergency capabilities in the Arctic.

EPPR's work in Phase I will involve reviewing and commenting on text and most likely providing additional information on emergency response in chapters as they are developed. Furthermore, EPPR will have representation at the AOR Experts Workshop in September 2010 where the draft document will be discussed.

10 Informational Briefs

10.1 Eco-protection in the Republic Komi

Mr. Valery Ivanov from the Lukoil Company gave a presentation on measures taken after the catastrophe in the Nenets Autonomous Region to address a fractured oil pipe that spilled over 730,000- barrels (approximately 100,000 tons) of oil. He stated the Lukoil Company inventoried the effected land and water area and attempted to stabilize the ecology. From 2004-2008 the company focused on spill prevention which included modernization of facilities and the introduction of safety programs. Mr. Ivanov said they have restored the contaminated area, conducted regular pipeline maintenance, and invested in oil spill response equipment and personnel. In addition, the company conducts ecological monitoring and fish restocking programs.

Mr. Knizhnikov from WWF asked about the winter-time spills which though considered cleaned up are found to be not completely addressed until spring. He stated that 40kg spilled into two streams and operations required year round monitoring.

10.2 Sea Rescue Service

Mr. Evgeny Travin, Chief of the "Gosmorspassluzhba" Russian Sea Rescue Service (State Marine Pollution Control and Salvage Administration) gave a briefing to meeting participants. The Russian Federation's Sea Rescue Service has tested methods for surviving in cold conditions and accumulated experiences used by northern indigenous groups. He emphasized the need for rescuers to stay comfortable and able to do the work.

The territory for rescue operations is huge and his organization is working to build up its SAR capabilities by working with other internal governmental ministries and cooperation with foreign rescue services. They are signatory to the Oil Spill Prevention Convention and are implementing these practices now. Sea Rescue Service has increased its capability to transport when it started building reserve ships in 2009. There are 41 vessels in the rescue fleet with an additional 15 more to be built by 2011.

11 EPPR Administration

The Chair reviewed the schedule through 2011 Ministerial Meeting. The next Senior Arctic Officials meeting will be held October 19-20, 2010 in the Faroe Islands. The 2011 Ministerial Meeting will take place in Nuuk, Greenland in May 2011. A planning meeting in preparation for the ministerial meeting will most likely take place in February or March 2011 and most items will need 90 days notice for inclusion in the meeting.

As a follow on to this discussion, the Chair mentioned the need for information materials which provide value to the Arctic Council as an effective means of communicating what EPPR is doing to the Senior Arctic Officials. EPPR fact sheets on radiation projects have been prepared and distributed to all the heads of delegation for their comment. She displayed examples of some information material the PAME Working Group's pamphlets on the AOR project.

The Chair proposed to host the fall 2010 EPPR meeting in Washington, D.C. on November 9 and 10. She said that at this meeting she expects that EPPR will work on and approve the Gap Analysis and the Risk Analysis documents and move forward with providing these to the SAOs for clearance in time to be submitted to the Ministerial meeting. There were no objections to this proposal. The Chair conducted a review of the draft Record of Decisions from Day One, and received no comments on the document.

12 Parallel Sessions:

12.1. Workshop on the Emergency Response and Mitigation of Radiological Emergencies in Various Regions

Radiation emergency response systems and their enhancement in the Russian Federation within the unified Russian system for radiation monitoring

Presented by V.Shershakov

According to the regulations on state environment monitoring service, the Hydrometeorology and Environment Monitoring Regulatory Authority of the Russian Federation (Roshydromet) is responsible for the operation of the state environment monitoring system. At present, there are 4184 environment monitoring stations including 1280 radiation monitoring stations.

Russian Unified Automated Radiation Monitoring System (RUARMS), which is currently under development, will ensure timely reliable information on radiation conditions for federal and regional authorities of the Russian Federation. Organizational and functional structure of RUARMS is composed of existing and newly established departmental and territorial subsystems joined into unified state system to achieve organizational and informational compatibility. The system is necessary for informational support of decision making in emergency or extreme radioactive contamination of environment in the territories including Arctic and Subarctic Regions.

Activities on improving radiation emergency preparedness in the Russian regions including arctic and subarctic territories

Presented by S.Krasnoperov

Work on development and improvement of territorial systems for radiation monitoring and response to radiation emergencies is carried out within the framework of cooperation of IBRAE RAN, EMERCOM of Russia, State Corporation Rosatom and regional authorities of the Russian Federation. To date, such project has been completed in the Murmansk Region. The project for Arkhangelsk Region is ongoing.

To improve each of the territorial systems, automated radiation monitoring systems are created; monitoring information is communicated to departments of EMERCOM, Roshydromet, State Corporation Rosatom, territorial agencies for Civil Defense, Emergency Situations and Fire Safety, and regional authorities. The system ensures the ability of the main participants of emergency response system and expert centers to make timely decisions on the safety of personnel, populations, and territories, and to provide timely information to the public through inter-agency cooperation.

Establishment of territorial systems of radiation monitoring and emergency response allows for the significant reduction of social and economic damage that results in the event of radiation emergencies. This is so because of the increased adequacy of the response and the efficient response infrastructure provides territorial authorities with prompt and competent assistance to make the decisions on intervention measures for protection of the population and territories.

Radiation Risks at Low Doses: Epidemiological Data after the Chernobyl Accident

Presented by S.Chekin

The Russian National radiation and epidemiological registry (NRER) studies radiation risks for the population of 689,000 persons exposed to low doses after the Chernobyl accident in 1986.

The studied groups are mainly the Chernobyl emergency workers (190,000 individuals) and the population of the most contaminated areas (433,000 persons).

The average individual dose for emergency worker was 0.1 Gy with maximal dose 0.5 Gy and for the studied population – 0.02 Sv with maximal dose 0.4 Sv (for the thyroid gland – 0.2 Sv with maximal value about 2 Sv).

For emergency workers during the first ten years after the Chernobyl accident (1986-1997), the excess relative risk per Gy (ERR/Gy) of the leukemia (excluding chronic lymphocytic leukemia) was statistically significant: ERR/Gy = 4.98 with 90% confidence interval (CI) (0.59-14.47). After this ten year period the radiation risk of leukemia was insignificant.

For the emergency workers who arrived to the Chernobyl zone in 1986 and 1987, for the follow-up period from 1992 to 2006 the statistically significant radiation risks of death was found for deaths from all causes (ERR/Gy = 0.42; 95% CI (0.14-0.72)), deaths from solid malignant neoplasm (ERR/Gy = 0.74; 95% CI (0.03-1.76)), and for deaths from diseases of the circulatory system (ERR/Gy = 1.01; 95% CI (0.51-1.57)).

The solid cancer incidence data shows the dependence of the radiation risk of the age at exposure ($ERR/Gy = 1.5$ for persons younger than 40 y and 0.6 for older persons) and the heterogeneity in the individual radiosensitivity of the emergency workers older than 40 y. A statistically significant dose response was observed for incident cerebrovascular diseases: $ERR/Gy = 0.39$, 95% CI (0.004; 0.77). For doses above 0.15 Gy this risk depends on the mean daily dose. Radiation risks of thyroid cancer due to the thyroid gland exposure to iodine isotopes were studied among the female population of the contaminated areas. The statistically significant risk for children and adolescents at the time of the Chernobyl accident was found, $ERR/Gy = 12.3$ with 95% CI (2.58, NA) while the risks for adults were not detected.

The priorities for the research in the future are radiation risks of solid cancers by sites, estimations of the latent period for cancers, non-cancer diseases, epidemiological estimations of the heterogeneity in individual radiosensitivity, radiation risks for children born to emergency responders, and molecular-genetic studies.

Safety of nuclear facility decommissioning and remediation activities in North-west Russia

G. Il'yushchenko

The North-west region of the Russian Federation is a priority region for bilateral and multilateral cooperation program in the field of nuclear and radiation safety. During the years of Cold War, the former Soviet Union created an unprecedented, with respect to number and types of ships, nuclear fleet supported by a wide sea and land-based infrastructure. Therefore, in 2003 the Fund "Northern Dimension Environmental Partnership" (NDEP) and Minatom of Russia initiated the project "the Development of Strategic Master Plan for Decommissioning of Nuclear Submarines, Nuclear-Powered Surface Ships and Nuclear Maintenance Vessels Taken Out of Operation and Environmental Rehabilitation of Related Radiation Hazardous Facilities in North-West Russia".

The Strategic Master Plan (SMP) was developed in order to solve the following problems:

- Complex decommissioning of nuclear submarines and other floating nuclear facilities posing radiation hazard;
- Remediation of coastal nuclear and radiation hazardous infrastructure facilities in an environmentally safe manner, including ensuring safe handling of spent nuclear fuel, radioactive waste and toxic waste management;
- Improvement of the physical protection of nuclear materials including upgrade of radio ecological monitoring in the North-west region.

The SMP covers nearly every decommissioned nuclear fleet facility, both civil and military, and maintaining infrastructure. The SMP integrates all activities stipulated by Rosatom's programs, plans and programs of other organizations participating in decommissioning works, and bilateral and multilateral international agreements. This allows efficient planning all measures and stages of activities on complex decommissioning of radiation hazardous facilities and remediation of territories on the basis of system analysis.

Ecological and Agricultural Impacts of Radiation Accidents with the Release of Hazardous Substances into the Environment

R.M. Alexakhin

The production of agricultural food stuff in compliance with the adopted radiological standards in areas affected by radiation accidents is one of the main conditions to ensure radiation safety and remediation of the contaminated regions, including Arctic and Sub-Arctic areas.

The basic paradigm has been developed and confirmed, which describes the danger of releases of anthropogenic radionuclides to the environment. It was formulated by Acad. V.M. Klechkovsky even before the Kyshtym accident in 1957, and initially confirmed during the mitigation of its consequences. According to this paradigm, the area where direct radiation injury of biota (environment) is observed is considerably smaller than the area where the human economic activity is excluded (or seriously restricted), because concentration of radionuclides in biological objects (primarily in farm products) exceeds the permissible standards. This paradigm helped analyze the situation, estimate the danger of radioactive contamination of the environment, and determine strategy for remediation of contaminated areas – one shouldn't overestimate the scope of radiation damage of ecosystems, the main efforts in mitigating consequences of such accidents must be aimed at reducing the rate of radionuclide migration via the trophic chains leading to man (mainly in the agricultural production).

As a result of radioecological studies in the Chernobyl affected regions, large-scale countermeasures have been developed and introduced in the agriculture, forestry and water economy that have significantly decreased the intensity of radionuclide transport through the environment and radionuclide uptake by humans, ultimately resulting in reduced exposure and remediation of the affected areas. This experience can be used elsewhere to mitigate radioactive accidents and to remediate effected territories.

Presentation of the "Atlas of current and forecasted aspects of the Chernobyl accident for the impacted territories of Russia and Belorussia"

S. Voronov

The Atlas of current and forecasted aspects of the Chernobyl accident consequences for the impacted territories of Russia and Belarus is presented. The Atlas was created by Russian and Byelorussian scientists in the framework of Cooperation Program and published in 2009.

Yu.A. Izrael, RAS academician, from the Russian side and I.M. Bogdevich, NAS academician, from Byelorussian side are the editors-in-chief of the Atlas.

EMERCOM of Russia and EMERCOM of Belarus exercise general control of the work.

The Atlas includes the following sections:

- review;
- dynamics of contamination of Russian and Byelorussian territories (retrospective, current and prognostic – up to 2056 – maps of caesium-137 soil contamination for the territories of Bryansk, Kaluga, Oryol, and Tula

- Regions of Russia, Brest, Gomel, Grodno, Minsk and Mogilyev Regions of Belarus);
- radioactive contamination of different landscapes (agricultural lands, forests, water reservoirs).

12.2. Experts Discussion on Oil Issues

Mr. Ole Bjerkemo facilitated a group discussion of the second concurrent track to focus on oil and gas issues.

1. Polar code

The aim of the Polar Code is to prevent accidents. Mr. Ole Bjerkemo reported that the IMO Maritime Safety Committee (MSC), at its eighty-sixth session, agreed to include an item on development of a mandatory code for ships operating in polar waters in the work program of the Sub-Committee Design & Equipment (DE). The work is planned to be completed in 2012.

At DEs 53rd session in January 2010 several countries and organizations submitted proposals for principles for the development of a mandatory polar code. It was agreed to establish a correspondence group under the coordination of Norway with the following terms of reference described in DE53/26 – Report to the Maritime Safety Committee.

The development of the Polar Code might also be of interest of EPPR related to oil spill response and training. Mr. Bjerkemo suggested that EPPR take note of the information about the IMO activities on the Polar Code and to discuss relevant issues related to the Polar Code e.g. training of personnel, oil spill equipment etc.

Mr. Parker mentioned that PAME was very actively working on issues related to the Polar Code and that we should remain aware of the topics effecting EPPR. Mr. Trigatti mentioned that it would be ideal to have a list of people who represent their nations so we can determine how to network or make the right contacts. Each country should follow up. Norway will continue to follow Polar Code items of interest and keep EPPR informed of relevant issues.

2. Places of refuge

The IMO defines a Place of Refuge as “a place where a ship in need of assistance can take action to enable it to stabilize its condition and reduce the hazards to navigation, and to protect human life and the environment.”

Mr. Bjerkemo noted that places of refuge were highlighted in the recommendations from the March 2008 workshop, entitled “Opening the Arctic Seas: Envisioning Disasters and Framing Solutions,” held at the University of New Hampshire in Durham, NH. Based on this a working group has been established with representatives from Norwegian Coastal Administration (planners, pilots and emergency response staff members) to undertake the MareSafe project which also includes Places of Refuge. Local emergency response units (harbor masters/fire brigade representatives), JRCC Bodø and experts with

competence in Arctic technology and Communication technology have been involved.

It was agreed that EPPR members can inform the WG on national process and work activities related to this subject as they choose. However EPPR will not pursue this as a formal project on this subject at this time. Norway will inform EPPR on the work of the MareSafe project once it is finalized and will demonstrate the use of the web-based application that is publicly available through the web page: <http://kart.kystverket.no>.

3. Discussion on work EPPR can undertake to address the prevention oil spills in the Arctic

The discussion centered on what type of information was necessary to focus on effective prevention measures. What role does crew and operation regulations, or weather and ice data play in formulating effective prevention strategies?

Based on the outcome of this discussion, EPPR will define its role in prevention and work on devising a better definition of prevention components (i.e. charting, vessel traffic, incident navigation, legislation standards, routing, emergency towing, etc.).

It was suggested that in future EPPR meetings, each country will include activities related to prevention, preparedness, and response in its country summary. One participant suggested taking two approaches with potentially valuable outcomes 1) exchange good solutions with the aim to come up with ideas on what can arctic countries do together and not just share individual experiences, and 2) within the framework of EPPR discuss items like the moratorium on drilling.

There are many prevention activities relevant to work in the Arctic (icebreaking capacity, shipping control zones, etc.) some of which may overlap with PAME. Participants recognized the benefit of defining the scope of prevention for EPPR as well as identifying the scope of other systems/regimes/agreements. After conducting an internal discussion to define our role in prevention the Chair of EPPR should meet with PAME to discuss how the responsibilities between the two WGs are to be defined.

Norway is currently undertaking an evaluation of its prevention measures and proposed that EPPR produce a document on prevention strategies. Mr. Pond suggested that the risk assessment is the start of this process, which should be followed by identifying preventive measures that can be undertaken to reduce the likelihood of an incident (most require national or international organization action). Members should inform each other on activities.

4. Discussion on UNH Matrix

A Correspondence Group will be established to complete the matrix; the group will be led by Canada, and include participation from Mr. Trigatti, Mr. Pond, and Mr. Bjerkemo, and others to be determined. Members will exchange information through email. Secretariat will update the matrix to include the comments and suggestions from the EPPR meeting.

5. Discussion on Gap Analysis

The Gap Analysis project will go ahead as planned. The revised draft will be sent to the University of Alaska for further development with a copy to EPPR HoDs for review. The Gap Analysis will be circulated for comment in the fall and will be discussed at the November EPPR meeting. The goal is for the Gap Analysis to be submitted to SAOs by the end of the year. The Gap Analysis will be presented to Ministers in 2011.

6. Discussion on Environmental Risk Assessment

Revision of the Risk Assessment document will continue with countries gathering input for the analysis by University of Alaska. Countries that have not provided input on the Risk Assessment must do so by July 9 by sending it to the EPPR Secretariat.

13 Conclusion of EPPR Meeting

13.1 Report from Breakout Sessions

Mr. Bjerkemo briefed the group on the discussion points from the Oil and Gas breakout session. Please see the notes in section 12.2. It was decided that the radiation briefings, though pertinent and interesting, would take too long to summarize. A manuscript of the radiation workshop will be produced. Please see section 12.1 for a summary of each briefing.

13.2 Finalize Record of Decisions

The Record of Decisions was finalized with the addition of two new items. The meeting location and date were confirmed. The Record of Decisions is attached.

13.3 Discussion of any Final Business

No final business was brought up for discussion.

13.4 Closing of the Meeting

Mr. Veselov provided concluding statements. The Chair provided closing remarks. The EPPR group as a whole extended its appreciation and thanks to Emercom for not only contributing substantially to the content of the meeting, but also for providing the venue and superb support of the meeting. With Emercom's facilitation, the meeting ran smoothly, allowing all delegates to focus on the subject matter.

Annex 1: Timed Agenda

Agenda

DAY ONE – June 16, 2010

- 1 10:00 – 10:30 Host Country Welcome and Opening Remarks
Alexander Chupriyan, EMERCOM Deputy Minister
Ivan Pozdeev, Komi Republic Deputy Governor
Valery Budovsky, Mayor of Vorkuta
Rostislav Goldshtein, Deputy Chair, State Duma Committee
- 2 10:30 – 10:45 Protection of People and Territories in the Arctic Sector of the Russian Federation and Security Systems Development
Alexander Chupriyan, EMERCOM Deputy Minister
- 3 10:45 – 11:30 EPPR Meeting Convenes
 - 3.1 Opening of Meeting Ann Heinrich, EPPR Chair
 - 3.2 Introductions EPPR WG Participants
 - 3.3 Approval of Agenda Ann Heinrich, EPPR Chair
 - 3.4 Update on Arctic Council Activities Ann Heinrich, EPPR Chair
- SAR Task Force Update Ambassador Anton Vasiliev
- 4 11:45 – 15:00 Work session related to the Arctic Marine Shipping Assessment recommendations Ole Bjerkemo, EPPR Vice Chair
 - 4.1 Results from Correspondence Group teleconferences and discussion document presentation
 - 4.2 “Opening the Arctic Seas” Review of University of New Hampshire workshop report George McCormick, Canada
-Discussion of the recommendations from “Envisioning Disasters” report from the workshop as a basis for developing strategic guidance for the EPPR work plan
-Review of matrix of recommendations prepared by Canada
 - 4.3 Review of the revised Analysis of Agreements (Gap Analysis)
 - 4.4 Consideration of the Environmental Risk Assessment Matrix and next steps
- 5 15:00 – 16:45 New Project Proposals
 - 5.1 15:00 – 15:30 Potential projects in conjunction with the Environmental Studies Research Fund George McCormick, Canada
 - 5.2 15:30 – 15:50 Automated Questionnaire for Assessing Spill Response Preparedness Bob Pond, USA

- 5.3 16:05 – 16:25 Search and Rescue Project Proposal Ben Strong,
USA
- 5.4 16:25 – 16:45 Prepositioning of Emergency Equipment David Barnes,
USA
- 6 16:45 – 17:45 Country Updates: All countries are invited to exchange information
on developments and activities of interest to EPPR
- 7 17:45 – 18:00 Day One Concluding Remarks Ann Heinrich, EPPR Chair

Agenda

DAY TWO – June 17, 2010

- 8 09:00 – 09:15 Opening of Meeting and Distribution of Draft Record of Decisions
from Day One Ann Heinrich, EPPR Chair
- 9 09:15 – 11:20 Ongoing Projects
- 9.1 09:15 – 09:40 Status of the BoHaSa project including preliminary findings and
proposed way forward Ole Bjerkemo, Norway
- 9.2 09:40 – 10:00 Arctic Rescue Update Igor Veselov, Russian Federation
- 9.3 10:00 – 10:25 Radiation Projects Update Maria Holleran Rivera, USA
- 9.4 10:25 – 10:45 Safety Systems Igor Veselov, Russian Federation
- 9.5 10:45 – 11:00 Managing Cold Situations in Emergency Relief
Timo Viitanen, Finland
- 9.6 11:00 – 11:20 EPPR participation in PAME's Arctic Ocean Review
George McCormick, Canada
- 10 11:35 – 12:25 Informational Briefs
- 10.1 11:35 – 12:00 Eco-protection in the Republic Komi Valerij Ivanov, Lukoil
- 10.2 12:00 – 12:25 Sea Rescue Service Chief of Gosmorspassluzhba, Russian
Federation
- 11 12:25 – 13:00 EPPR Administration Ann Heinrich, EPPR Chair
- Review of schedule through 2011 Ministerial Meeting
- Proposal for fall 2010 Meeting
- Review and Revision of draft Record of Decision from Day One
- 12 1400 – 1700 Two Parallel Sessions
- Session 1: Workshop on the Emergency Response and Mitigation of Radiological
Emergencies in Various Regions
Chairs: Ann Heinrich, EPPR Chair, DOE, USA
Tatiana Marchenko, EMERCOM, Russia
- 14:00-14:30 Radiation emergency response systems and their enhancement in

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the Russian Federation within the unified Russian system for radiation monitoring
Vyacheslav Shershakov, SPA "Typhoon"

14:30-15:00 Activities on improving radiation emergency preparedness in the
Russian regions including arctic and subarctic territories Sergey Krasnoperov,
IBRAE RAN

15:00-15:30 Radiation risks at low doses: epidemiological data after the
Chernobyl accident Sergey Chekin, Medical Radiological Center of the
Russian Academy of Medical Sciences

15:45-16:15 Safety of nuclear facility decommissioning and remediation
activities in North-west Russia Georgiy Il'yushchenko, IBRAE RAN

16:15-16:45 Environmental and agricultural consequences of radiation
emergencies with radioactive releases into the environment Rudolf
Aleksakhin, R&D Institute of agricultural radiology and agroecology of the
Russian Agricultural Academy

16:45-17:00 Presentation of the "Atlas of current and forecasted aspects of the
Chernobyl accident for the impacted territories of Russia and Belorussia" Sergey
Voronov, Russian-Belorussian Information center

Session 2: Experts Discussion on Oil Issues

Chair: Ole Bjerkemo, EPPR Vice Chair

14:00-14:30 Information about activities within IMO (Polar Code) and PAME
related to oil spill response in the Arctic Ole Bjerkemo, EPPR Vice Chair

14:30-15:00 Report on Places of Refuge Ole Bjerkemo, EPPR Vice Chair

15:00-15:30 Discussion of what work EPPR can undertake to address
prevention of oil spills in the Arctic All delegates

15:45-16:30 Follow up on revision of: Analysis of Agreements and
Arrangements and Risk Assessment documents All delegates

16:30-17:00 Discussion and decisions on next step All delegates

13 17:00 – 18:00 Conclusion of EPPR Meeting

13.1	Reports from Breakout Sessions	Breakout Session Leaders
13.2	Finalize Record of Decisions	Allison Saunders, EPPR Secretariat
13.3	Discussion of any Final Business	Ann Heinrich, EPPR Chair
13.4	Closing of the Meeting	Ann Heinrich, 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.

4.3 Review of the revised Analysis of Agreements (Gap Analysis)

The group agreed on the following path forward:

- 1) The EPPR Secretariat will provide comments from the meeting to the EPPR WG and the consultants at the University of Alaska-Fairbanks (UAF) by June 24, 2010.
- 2) EPPR provides comments on the draft dated May 26, 2010 to Secretariat by July 9, 2010.
- 3) UAF will expand the document taking EPPR input into account.
- 4) A revised draft will be distributed not later than 30 days prior to the fall EPPR meeting for discussion and finalization at the meeting.
- 5) Completed document sent to the Chair, Senior Arctic Officials in time for Ministerial document review.

4.4 Consideration of the Environmental Risk Assessment Matrix and next steps

Finland, Sweden, Denmark, Iceland, the United States, and the Russian Federation will revise their respective risk matrix and send results to the Secretariat by July 9, 2010.

5.1 Potential projects in conjunction with the Environmental Studies Research Fund (ESRF)

Canada will provide an update on ESRF studies at the next meeting and provide the Secretariat with an electronic copy of ESRF reports as they become available.

5.2 Automated Questionnaire for Assessing Spill Response Preparedness

The Automated Questionnaire is on the EPPR website. Should any country wish to continue development of this tool they are welcome to propose this to EPPR in the future. The program is accompanied by a document containing the rationale for each question that is included in the existing database.

5.3 Search and Rescue Project Proposal- Arctic Automated Mutual Assistance Vessel Rescue Network (AAMverNet)

The United States and the Russian Federation will discuss the possibility of collaborating in this area. The U.S. and Russia will report back to EPPR with a decision/outcome. Other countries interested may join in this project at a future date.

5.4 Prepositioning of Emergency Equipment

Canada and the United States will conduct a joint pilot program to assess regional

capabilities and will report back to EPPR.

9.1 Status of the BoHaSa project including preliminary findings and proposed way forward

EPPR is requested to provide comments to the report by August 1, 2010. Norway will inform on the conduct of a related workshop in the future.

11 EPPR Administration

The next meeting will be held November 9-10, 2010 in Washington, D.C.

*Annex 3: List of Meeting
Participants*

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