**Action Group on Antarctic Fuel Spills (AGAFS)**

**Update 4/28/08**

The largest quantity (by volume) of potential pollutants imported into the Antarctic region is fuel (hydrocarbon-based refined products) used by station and science operations continent-wide. SCAR established a mechanism to provide scientific advice on the fate and effect of releases of fuel in polar environments in 2008. To address a range of potential issues associated with fuel spills in Antarctica, stimulated by the sinking of the MV Explorer, SCAR has established recruited a group oceanographers, ecologists and other specialists that would be available to respond to requests from the Antarctic Treaty Secretariat and/or Antarctic Treaty Parties for assistance or advice – the Action Group on Antarctic Fuels Spills (AGAFS).

AGAFS is tasked with responding when specific advice is requested and operates as an executive committee that directs, facilitates and coordinates responses as needed. AGAFS will be largely quiescent until a specific need arises but when a need is identified or a request for advice is received Terms of Reference will be developed that are specific to the request. AGAFS response might include developing a white paper, compiling inventories of biological resources, convening a workshop of experts, and/or provision of contact information for experts, for example.

AGAFS membership is intentionally small as the group will co-opt appropriate expertise as needed depending on the issues under discussion. AGAFS is poised to address issues related to fuel spills such as:

- What ecological resources are at risk within the vicinity of a release?
- Are there specially protected or vulnerable species in the area that need special attention to prevent damage?
- How and where will the local prevailing oceanographic conditions disperse the released fuel?
- What will be the chemical and biological fate of the fuel once released?
- Are there natural processes at work that will mitigate the fate and effects of a release and can these be augmented?
- What are the toxicological properties of the fuel release?
- Are there special considerations that responders should be aware of related to releases of fuel in polar climates?
- What technologies are available that are most effective for spill clean-up in the special circumstances of polar climates?

AGAFS will work closely with SCAR’s Standing Committee on the Antarctic Treaty System (SC-ATS) and, on the technical issues of fuel spill response, with the Council of Managers of National Antarctic Programs (COMNAP). The AG may also coordinate its activities with other scientific organizations in order to assemble best expertise available on each issue as it arises.

AGAFS members include:

- M.C. Kennicutt II (SCAR VP for Scientific Affairs) (Convener; Oil Spill Response, Damage Assessment, Contaminant Analyses, Study Design)
- M. Meredith (Physical Oceanography)
• M. Bester (Seals)
• J. Coosen (Environmental Impacts)
• K. Conlan (Environmental Impacts, Human Impacts)
• J.-A. van Franeker (Birds)
• W. MacCormack (Marine Microbiology)
• L. Campos (Marine Benthic Organisms)
• V. Alder (Environment, Phytoplankton Ecology)
• M. J. Borbor-Cordova (Environmental Impacts)
• I Snape, (Petroleum hydrocarbons in Cold Regions)
• COMNAP Representative (Response Technologies, to be named)

Ex Officio Members

• M. Candidi (Chief Officer, Physical Sciences)
• A. Huiskes (Chief Officer, Life Sciences)
• A. Capra (Chief Officer, Geosciences)
• S. Chown (Chief Officer, Standing Committee on Antarctic Treaty System)
• A. Guichard (COMNAP Secretariat)
• C. Summerhayes (SCAR Secretariat)

Inaugural Activities

AGAFS members are responsible for setting a course for and developing plans to respond to requests for information or advice on fuels spills in Antarctica should the need arise. AGAFS members are broadly experienced in disciplines and topics most relevant to fuel spills and their aftermath. The group will be supplemented as needed depending on the activities undertaken. In some cases, the involvement of only selected AGAFS members may be warranted to respond to a request.

The determination of the fate and effects of fuel spills and documentation of environmental damages are costly, human resource intensive efforts. Responses to fuel spills and their aftermaths should be based on the best scientific advice, but outcomes are often influenced by political considerations, public perceptions and other non-scientific factors that are beyond the remit of SCAR. Costs related to incidents of this type are usually assumed by the responsible parties. SCAR is not in a position to unilaterally act in response to individual fuel spill incidents without evaluating its competence to respond and then identifying the resources necessary to ensure a successful outcome.

However, if appropriate resources (human and financial) are identified AGAFS, on behalf of SCAR, can assist in identifying the necessary expertise, organize activities, provide scientific advice on topical issues, and/or participate in activities that others may organize and fund.

As a first action a web page was created at the SCAR web site including short biographical paragraphs for each member. As a second action, AGAFS members were ask to identify basic references (manuals, workshop reports, and standard procedures), case studies, study design guidance, web sites and electronic resources, and other useful references related to fuel spill responses and/or experiences in cold regions. While the intent is not to produce an exhaustive bibliography, the site is a starting point for those seeking information. A third action was for AGAFS members to provide ideas,
suggestions, comments, or other input about developing a plan for AGAFS future work. This initial input by the group was used to develop a list of potential activities including a workshop on fuel spill risk assessment and remediation, developing fine-resolution predictive hydrodynamic models to track the advection and dispersion of spills, and exploring what environmental indicators are already being monitored that might be useful for predicting future fuel spill impacts. AGAFS continues to discuss future directions, identify leaders for proposed actions, and assess the interest and availability of resources to conduct activities.