

Scientific Committee on Antarctic Research (SCAR)

Action Group on Antarctic Fuel Spills (AGAFS)

As one of the organizations responsible for providing scientific advice to the Antarctic Treaty System and as a facilitator and coordinator of high quality, international science in Antarctica; SCAR has special responsibilities in regard to understanding human impacts on the Antarctic environment. A goal of SCAR is to stay abreast of the best scientific knowledge available for ensuring the protection and preservation of the Antarctic region now and for future generations. By far the largest quantity of potential pollutants imported to the Antarctic region by people is fuel (hydrocarbon-based refined products) used by station and science operations continent-wide. Therefore, it is appropriate that SCAR establish a mechanism to provide scientific advice on the fate and effect of releases of fuel in polar environments.

To address a range of potential issues associated with fuel spills in Antarctica, stimulated by the sinking of the MV Explorer, SCAR has established an “Action Group” of oceanographers, ecologists and other specialists to respond to requests from the Antarctic Treaty Secretariat and/or Antarctic Treaty Parties for assistance or advice. SCAR has also made initial contact with the Council of Managers of National Antarctic Programs (COMNAP) Secretariat to enable both organizations to coordinate possible responses to the current incident.

SCAR convenes Action Groups to rapidly assemble the expertise needed to address specific issues in a timely manner. In the wake of the sinking of the MV Explorer on 23 November 2007, it was agreed that the Action Group on Antarctic Fuel Spills (AGAFS) be created. AGAFS stands ready to address issues that might arise related to the fate and effects of fuel releases in Antarctica. While the immediate need is related to the MV Explorer incident, the formation of AGAFS assembles the capabilities necessary should the need arise to respond to future incidents as well.

It is intended that the Action Group be small in membership and co-opt expertise as needed depending on the issues under discussion. In this sense, the AG does not have *carte blanche* to independently take on a wide range of potential issues related to fuel spills, but is tasked with responding when specific advice is requested. In this context the AG will operate as an executive committee directing, facilitating and coordinating responses. Its activities will be largely quiescent until a specific need arises. When a need is identified or a request for advice is received, the AG will develop Terms of Reference specific to the issue at hand. Responses might include a white paper on selected topics, compilations of biological resource data for an affected geographic location, convening of a workshop of experts, and/or provision of contact information for experts as examples. For instance the AG might be enlisted to suggest ways in which high-resolution oceanographic models are used to indicate the trajectory of a spill, and provide expert comment on what biological resources in the area are most likely to suffer from exposure to spilled fuel.

On a case-by-case basis, AGAFS might address issues 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?

Partnerships: The AG will work closely with SCAR's Standing Committee on the Antarctic Treaty System (SC-ATS) and, on the technical issues of spill response, with the Council of Managers of National Antarctic Programs (COMNAP – contact point Antoine Guichard, Executive Secretary, sec@comnap.aq). COMNAP has a long history of developing plans and capabilities for responding to fuel spills in Antarctica including contingency plans. SCAR and COMNAP have jointly sponsored assessments of best practices and the state-of-the-art of spill response and clean-up technologies in polar waters. The AG may also chose to coordinate with other scientific organizations (such as SCOR), in order to assemble the best expertise available on a particular issue.

Membership: Previous experience in responding to fuel spills suggests that a team of oceanographers, ecologists, biologists, chemists, risk assessors and study design experts is needed for a full assessment of spill scenarios.

Members of the Team:

- M. C. Kennicutt (SCAR V-P for Scientific Affairs) (chairman)
- M. Meredith (physical oceanography)
- M. Bester (seals)
- J. Coosen (environmental impacts)
- K. Conlan (environment)
- J. A. van Franeker (birds)
- G. Mataloni (algae)
- L. Campos (benthic organisms)
- V. Alder (environment)
- M. J. Borbor-Cordova (environmental impacts)
- COMNAP Representative (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)