

# Alfred Wegener Institute guidelines for the environmentally correct behaviour of expedition participants in the Antarctic

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## I. Environmental Protection

The comprehensive protection of the Antarctic environment and dependent and associated ecosystems, as well as the preservation of the Antarctic as a nature reserve devoted to peace and science, is the objective of § 1 of the Act implementing the Antarctic Treaty Environmental Protocol (AUG).

Failure to comply with the environmental protection regulations contained in the AUG can result in substantial fines.

In order to realize the objectives of § 1 AUG, expeditions participants are not allowed to:

- 1) kill, injure, catch, handle or molest Antarctic native mammals or birds and to damage or remove Antarctic native plants or invertebrates.
- 2) harmfully interfere with native Antarctic fauna and flora. In this context, harmful interference means:
  - a) using air<sup>1</sup>, water or land vehicles and using explosives or firearms in a manner that disturbs concentrations of birds or seals, displaces them from their traditional habitats, or impairs the natural growth and development processes of plants;
  - b) disturbing breeding or moulting birds or concentration of birds and seals by persons on foot, if specified minimum distances<sup>2</sup> and noise levels are not complied with;
  - c) treading and driving on plants, the placement or storing of materials, equipment and vehicles of all kinds with the result that plants or their substrate are damaged;
  - d) performing other activities that result in adverse modification of habitats of animals and plants.
- 3) to enter, drive in or fly over specially protected areas.
- 4) to take animals and plants (including seeds) that are not native to the territory of the Antarctic Treaty, as well as microorganisms or non-sterile soil, into the Antarctic.

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<sup>1</sup> When operating aircraft, the rules and measures specified in the leaflet (in German only) entitled "**Merkblatt Betrieb von Luftfahrzeugen in der Nähe von Tieransammlungen**", including the minimum distances between aircraft and items to be protected, must be complied with. The leaflet is available at [www.umweltbundesamt.de/sites/default/files/medien/2875/dokumente/merkblatt\\_mindestabstaende\\_2018.pdf](http://www.umweltbundesamt.de/sites/default/files/medien/2875/dokumente/merkblatt_mindestabstaende_2018.pdf).

<sup>2</sup> See UBA brochure "Visitors Guidelines for the Antarctic", available at [www.umweltbundesamt.de/en/publikationen/visitor-guidelines-for-antarctic](http://www.umweltbundesamt.de/en/publikationen/visitor-guidelines-for-antarctic).

- 5) to import prohibited substances / products into the territory of the Antarctic Treaty, including:
  - a) pesticides of all kinds;
  - b) polystyrene beads, polystyrene chips or similar packaging material, e.g. styrofoam packaging material in the form of plates, chips, flakes, globules, as well as polychlorobiphenyls (PCBs)
  - c) lubricating oils and fuels with additives such as lead and ethylenchlorid;
  - d) CFC-containing propellants, e.g. for preservatives, repair paints, body deodorants, hair sprays etc.;
  - e) poultry products that have not been tested for disease.
- 6) to openly burn waste in the Antarctic.
- 7) to leave waste of all kinds behind in the Antarctic<sup>3</sup>.

Note: If necessary for the implementation of research projects, exemptions from the prohibitions under 1) to 4) can be applied for at the German Environment Agency (UBA).

## II. Waste treatment

The Waste Management Handbook of July 2019 forms the basis for waste management carried out by AWI in the Antarctic.

The following applies when planning, preparing and carrying out expeditions:  
waste prevention is better than waste disposal;  
environmentally friendly use of consumables and supplies;  
no import of particularly dangerous substances into the Antarctic;  
recycling and proper professional disposal of unavoidable waste;  
control and verification.

All expedition members are responsible for complying with these principles.

### Notes on waste treatment:

#### *Reduction of waste by minimising packaging*

The packaging material for expedition equipment must be kept to a minimum.  
For food, detergents and cleaning products, products and containers with simple packaging are to be preferred.  
Instead of plastic, packaging material made of paper and cardboard should be used primarily.  
For delivery, aluminium boxes should be used primarily, as far as these are suitable for the equipment.  
Any expeditionary waste generated (despite all precautionary measures) must be collected, separated and repatriated from the Antarctic for disposal.

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<sup>3</sup> Concerning the disposal of kitchen and sanitary sewage see paragraph "Waste water" below.

### *Dangerous substances*

Dangerous substances, such as (un)used toxic chemicals and solvents, no longer required fuels and lubricants, as well as radioactively marked sample material and radioactive waste are to be stored in suitable (approved) containers and have to be correctly declared for return transport.

### *Sewerage*

Sanitary and kitchen waste water at stations, camps and traverses may only be discharged in deep ice pits, provided that this is the only practicable disposal option. Such pits shall not be located on known ice-flow lines which terminate at ice-free areas or in areas of high melting / ablation. The discharge to ice-free areas or inland lakes is prohibited.

At stations with sewage treatment plants and without separate sink drains, no chemicals should be poured into the sinks.

### *Control of waste treatment*

It is the duty of the person responsible for waste management at a station or during an expedition to ensure the proper enforcement of the waste treatment regulations. They inspect directly on site the collection, separation and collection of waste (see document sheet in the expedition waste journal).

In cases of doubt, the member of the expedition team responsible for environmental protection should be consulted. Prior to the start of the expedition, the environmental protection officer at the Alfred Wegener Institute should be consulted.