On the issue of developing regulatory and methodological provision of the reduction of air pollutant emission sources impact on the Antarctic environment

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**Information paper submitted by the Republic of Belarus**

***Summary***

Emissions are one of the main ways of influencing the Antarctic environment, its climate and biota. Despite the limited human presence in Antarctica, human impact is tangible here, especially in areas with vigorous scientific and logistical activities, due to the vulnerability of the natural environment of this region. The legislative framework for regulating the impact of anthropogenic activities on the natural environment in Antarctica, including the air was laid down by the Protocol on Environmental Protection of 1991, however, specific requirements regarding sources of impacts on atmospheric air, mechanisms and ways to achieve them have not yet been prescribed. This reduces effectiveness of the Protocol.

Proposed document aims to draw the attention of the Parties to the Protocol to the need to develop regulatory and methodological support for reducing the impact of pollutant emission sources on the environment of Antarctica.

The Protocol on Environmental Protection of 1991 has laid down the legal basis for regulating impacts on the Antarctic environment, including atmospheric air. The Annex III to the Protocol - Waste Disposal and Waste Management contains direct indications of the need for air protection measures in relation to waste incineration. Article 3 - Waste disposal by incineration of the Annex III prescribes: “1. ...combustible wastes, other than those referred to in Article 2 (1), which are not removed from the Antarctic Treaty area shall be burnt in incinerators which to the maximum extent practicable reduce harmful emissions. Any emission standards and equipment guidelines which may be recommended by, inter alia, the Committee and the Scientific Committee on Antarctic Research shall be taken into account.” At the same time, the analysis of the documents adopted by the ATCM, CEP, COMNAP, SCAR after the signing of the Protocol showed that among them there are few documents that can be considered as the implementation of its provisions in relation to emission sources.

The CEP, SCAR and COMNAP have developed a number of guidelines covering various environmental aspects. But only the revised Guidelines for Environmental Impact Assessment in Antarctica (2016) anticipate the implementation of measures to reduce environmental impacts during the construction and operation of facilities in Antarctica. Section 3.5 *Measures to minimize or mitigate impacts* requires that the EIA process include consideration of measures to reduce, prevent or eliminate any component of the impact on the environment or the scientific research process and other use or values of the proposed activity area. This Section of the Guidelines provides examples of specific mitigation measures depending on the type of activity and the characteristics of the environment, and may include different options for action. These include the development of site management measures (e.g., fuel storage and handling measures, the use of renewable energy sources and other devices to minimize air pollutant emissions and water consumption, the use of adequate waste disposal and disposal methods, and ways to minimize noise and light pollution of the environment). However, these requirements apply only to the proposed activity for which an EIA is being developed, and they are general. There are no documents directly regulating the impact on the atmospheric air.

The analysis showed that papers (Working Papers, Information Papers, Basic Papers) on air impacts are rarely submitted to the ATCM. Examples are the Information paper on quantifying cumulative air impacts from impact assessments in Antarctica (ID30) presented at the 43rd ATCM in Paris (2021); Information paper on the application of emission dispersion modeling for construction/operational impact assessment objects in Antarctica - ID 3 (2016), the establishment of thresholds for critical loads and allowable levels for the Antarctic environment - ID5 (2017), etc. The submitted documents, however, did not cover the issues of regulation and reduction of pollutant emissions.

**Conclusions and proposals**

Regulatory requirements to the sources of air impact established by the Annex III to the Protocol on Environmental Protection to the Antarctic Treaty in relation to waste incineration installations are not provided: no elaborated standards on emission levels for incinerators and other categories of sources of impact. There are also no manuals and guidelines for accounting and assessing air sources impacts and their mitigation. This significantly reduces the effectiveness of air protection in Antarctica.

Given the need to implement the requirements of the Protocol on Environmental Protection, it seems appropriate to implement the following steps to develop regulatory and methodological support for reducing the impact of pollutant emission sources on in Antarctica:

– development of systems for inventory and accounting of air pollutants and greenhouse gases emission sources at different levels of aggregation;

- supplementing the annual reports of the Parties in accordance with the obligations under the Protocol on Environmental Protection with quantitative information on emission levels and parameters of emission sources; this information will be used to assess and project the impact on the environment;

– development of recommended emission standards for the main sectors – sources of emissions (priority sector – waste incineration);

– development of recommendations on systems of environmental control, accounting and monitoring of emission sources;

– preparation of reference books of the best available BAT technologies (BAT-BEP) for energy, heating, waste incineration, vehicles in Antarctica based on EU BREF reference books.

The preparation of such documents, using the best international and national experience in these areas, can be included in the work plan of the CEP.

***References***

Guidelines for Environmental Impact Assessment in Antarctica. Annex to Resolution 1. ATCM XXXIX – CEP XIX 2016.

ATCM39/IP3, 2016. Application of air dispersion modeling for impact assessment of construction/operation activities in Antarctica.

ATCM40/IP5, 2017. Towards establishing of values of critical loads and thresholds for the Antarctic environment.

ATCM43/IP30, 2021. Information provision of quantitative assessment of cumulative air impacts in the framework of environmental impact assessment in Antarctica.