

HELCOM RECOMMENDATION 6/7

adopted 13 March 1985, having regard to Article 13, Paragraph b) of the Helsinki Convention

RECOMMENDATION CONCERNING THE TREATMENT OF MUNICIPAL SEWAGE AND INDUSTRIAL WASTEWATER*) WITH SPECIAL EMPHASIS ON THE REDUCTION OF DISCHARGES OF NUTRIENTS

THE COMMISSION,

RECALLING Paragraph 1 of Article 6 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1974, (Helsinki Convention), in which the Contracting Parties undertake to take all appropriate measures to control and minimize land-based pollution of the marine environment of the Baltic Sea Area,

RECALLING ALSO Paragraphs 1 and 3 of Annex III of the Helsinki Convention, in which the Contracting Parties agree to apply an effective treatment of municipal and industrial wastes aimed at the reduction of discharges of organic matter and nutrients to the marine environment,

NOTING the increasing concentrations of nutrients in the marine environment causing negative effects on local ecosystems including eutrophication and oxygen depletion,

RECOGNIZING the importance of discharges of municipal sewage and industrial wastewater as sources of pollution of the marine environment by nutrients,

DESIRING to limit this pollution by an effective treatment of municipal sewage and industrial wastewater, in this case industrial wastewater means such water that is in composition similar to municipal sewage

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention that:

- a) appropriate criteria and measures be applied to sewage discharges in order to control and minimize land-based pollution and eutrophication of the marine environment of the Baltic Sea Area. In the treatment of the wastewater mechanical, chemical, biological and other measures, according to the quality of the wastewater, and as required to maintain or improve the quality of the recipient water, shall be applied;
- b) where nutrient removal is of primary concern appropriate treatment should be carried out, for example, by replacing or combining biological treatment with chemical precipitation or other methods of equal efficiency; and
- c) where nitrogen removal is found more necessary than phosphorus removal, the treatment described above should be replaced by or combined with nitrogen removal methods,

RECOMMENDS FURTHER that the Contracting Parties should report on their national measures taken in accordance with Paragraphs a) - b) above by 1 July 1986, 1988 and 1990, whereafter the reporting takes place in connection with the Pollution Load Compilation. The report should include, if possible, the number of inhabitants in and/or annual volumes of sewage discharges from the referred communities (separate for direct and indirect discharges) having no sewage treatment, only mechanical treatment, mechanical and biological treatment, mechanical and chemical treatment, mechanical and biological and chemical treatment, other more advanced treatment,

RECOMMENDS ALSO that the above statements be valid also for external wastewater treatment measures at industries producing wastewaters similar in composition to municipal sewage.

PROPOSAL FOR OUTLINES FOR THE LONG-TERM PLAN FOR THE SCIENTIFIC-TECHNOLOGICAL COMMITTEE (STC)

The 11th meeting of the STC decided that the Chairman of the STC and the Secretariat should prepare a new proposal for outlines for the long-term plan for the STC to be considered by the 6th meeting of the Helsinki Commission (STC 11/14, Paragraph 10.8).

In accordance with the decision by STC 11 the proposal is based on the draft outline for a long-term plan submitted by an informal working group established by STC 10 in 1983, as amended by the 11th meeting of the STC in November 1984 (STC 11/14, Annex 18). The comments submitted by the Contracting Parties as well as the decisions and views expressed by the 11th meeting of the STC have been taken into account (STC 11/14, Paragraph 10.8).

The Commission might wish to

consider the attached "Proposal for outlines for the longterm plan for the STC" and accept the ideas expressed in the document in principle;

- advise the STC, as appropriate, on the further elaboration/ development of the long-term plan for the STC and to decide that the draft long-term plan for the STC be prepared for the consideration of the next meeting of the STC by the Chairman of the STC and the Secretariat; and
- decide upon the working structure of the STC in 1985 (Annex 1), if it will be decided by the Commission that the principles of the outlines for the long-term plan will be applied in the work of the STC beginning in 1985 as proposed by STC 11~

Background of the development of the document

The Helsinki Commission is entrusted by the Contracting Parties to keep the implementation of the Convention under continuous observation.

The 10th meeting of the STC in 1983 considered carefully the proposal for a Medium-Term Plan submitted by the Executive Secretary. The Committee decided to establish an informal working group to prepare relevant proposal for the consideration by STC 11 aiming at preparing, a long-term strategy for the STC. The informal working group consisted of the Chairman of the STC, Mr. Lars Thorell of Sweden, the Vice-Chairman of the STC, Professor Harald Velner of the USSR, and a representative of Finland, Professor Seppo Mustonen. The group submitted its proposal for the consideration by STC 11.

Acknowledging the importance of planning future activities, the Medium-Term Plan for the activities of the Helsinki Commission was adopted as HELCOM Resolution 5/A by HELCOM 5 in March 1984 (HELCOM 5/16, Annex 5). The 5th meeting of the Commission noted that the plan should be kept constantly under review and requested its permanent subsidiary bodies to take into account the Medium-Term Plan, when elaborating plans and programmes for actions related to their mandates (HELCOM 5/16, Paragraph 5.4).

The Commission further noted that when reviewing the Medium-Term Plan, the on-going long-term planning within the framework of the permanent subsidiary bodies should be taken into account (HELCOM 5/16, Paragraph 5.5).

The informal working group established by the 10th meeting of the STC worked intersessionally concentrating on strategic and organizational questions of the STC. The group deemed it important that background information should be given in the long-term plan for the STC, but left the elaboration of such information to the final stage of development of the long-term plan. Consequently, the group submitted for the consideration of the 11th meeting of the STC "Guidelines for the development of a long-term plan for the STC".

STC 11 thoroughly considered the proposal and decided to accept the ideas expressed in the document in principle. The Committee further decided to propose to the 6th meeting of the Commission that the outlines of the document be applied, as applicable, for the work of the STC already during 1985. Especially the branchwise approach should be emphasized in future activities (STC 11/14, Paragraph 10.3).

The Committee also accepted the proposed model for the organization of the work of the STC in principle, although bearing in mind that the new structure of the work should not imply extra costs for the Commission in carrying out meetings and that the participation in the meetings is expected to be more effective, centralized and easy.

The 11th meeting of the STC decided to propose to the 6th meeting of the Commission that the long-term plan could be further developed by the Chairman of the STC and the Secretariat due to the short time between the meetings of the Commission and STC 12, taking into account the Medium-Term Plan of the Commission.

The Committee decided that the Chairman of the STC and the Secretariat will prepare a new proposal for outlines for the long-term plan for the STC for the consideration by the 6th meeting of the Commission (STC 11/14, Paragraph 10.8). In accordance with the decision by STC 11 the draft for the new document has been considered by the meeting of the Chairmen and representatives of the Secretariat of the Helsinki Commission in Helsinki 3-4 January 1985.

The proposal for outlines for the long-term plan for the STC is attached.

PROPOSAL FOR OUTLINES FOR THE LONG-TERM PLAN FOR THE SCIENTIFIC-TECHNOLOGICAL COMMITTEE (STC)

1. INTRODUCTION

The 5th meeting of the Helsinki Commission decided that its decisions on policy matters addressing the Commission should be named HELCOM Resolutions. The Commission, having regard to Article 13, Paragraph a) of the Helsinki Convention, adopted HELCOM Resolution 5/A concerning Medium-Term Plan for the Activities of the Helsinki Commission, at its 5th meeting on March 1984. The Commission requested its subsidiary bodies to take into account the Medium-Term Plan, when elaborating plans and programmes for actions related to their mandates.

In the Medium-Term Plan, HELCOM Resolution 5/A, the Helsinki Commission adopted e.g. that in order to enable the Contracting Parties to intensify practical measures to reduce the land-based

pollution of the Baltic Sea Area, high priority will be given by the Commission to the following tasks:

evaluation of effects of and elaboration of proposals for appropriate action against:

- discharges of nutrients and oxygen consuming substances into the marine environment of the Baltic Sea, including input of nutrients from diffuse sources, i.a., agriculture and forestry; and
- other contaminants, especially pollutants from pulp and paper industries and airborne substances,

elaboration of criteria for reduction of the emission of harmful substances from major sources taking into account the varying need for measures within the different branches of industry and the best available and economically feasible technologies; and stormwater management and treatment.

In the Medium-Term Plan the Commission further adopted e.g. that the activities with a view to obtaining a rational base for appropriate measures aimed at the environmental protection of the Baltic Sea Area will include:

regular monitoring and periodic assessment of the state of the environment of the Baltic Sea;
evaluation of the pollution load;

research work aiming at the improvement of the state description of the Baltic Sea including study of the pathways and environmental effects of harmful substances, especially persistent contaminants;
research and development with a view to improving technologies for reduction of pollutants, especially nitrogen compounds; and
exchange of relevant scientific and technological information.

The tasks mentioned above and included in the Medium-Term Plan of the Commission are tasks to be taken into account when planning the work of the STC according to the present terms of reference of the STC, as adopted by the Commission at its 3rd meeting in 1982. In accordance with the Terms of Reference the Articles of the Convention relevant to the work of the STC are Articles 5, 6, 9, 10 and 16.

A short review of the activities of the STC under the auspices of the Convention, goals set by the Commission and their present implementation will be given as a background for the proposal for the outlines for the long-term plan of the STC.

2. STATUS OF THE ACTIVITIES WITHIN THE FIELD OF THE STC

The 11th meeting of the STC was of the opinion that the revised "Guidelines for the development of a long-term plan for the STC" (STC 11/14, Annex 18) forms a good basis for the further elaboration of a long-term plan for the STC. The Meeting supported the principles, especially the branchwise approach and proposed organization of the work.

In the document HELCOM 6/4 (STC 11/14, Annex 18) it is suggested that in preparing the long-term plan for the STC the proposed activities would be based on a review of the activities in the

field of the STC. Special attention should be paid to how the goals of the Convention have been achieved and could be achieved in the future work. For the evaluation it is proposed that three main fields should be considered:

1. Status of different branches and measures,
2. Cooperation with other international organizations; and 3. Evaluation of the activities within the STC.

The document HELCOM n/4 (STC 11/14, Annex 18) includes an appendix as an example how the review of the activities within the field of the STC in relation to the Convention could be drafted.

The outlines of these three fields are the following:

2.1, Status of different branches and measures

on the basis of present and expected trends in discharges, an evaluation will be made on the direction and speed of the measures required. In anticipation of a more clearly branchwise approach, the evaluation of the future needs should also be made branchwise and not only substance by substance. The sectors to be studied are agriculture, certain branches of industry (e.g. pulp and paper industry, oil refineries), municipalities, aquaculture (e.g. fish farming), dredging, navigation, recreation, landfill, atmospheric fallout and others.

The gaps in technology and knowledge are to be surveyed. It is obvious that information, knowledge and resources exist, but not always available where needed. At least some of are due to the lack of these resources in the right they are the gaps place.

2.2 Cooperation with other international organizations

The international organizations and agreements most closely related to the field of the STC are the other regional or global conventions (e.g. Oslo, Paris, London, Gdansk, Geneva, Bonn, Copenhagen), certain agreements among the Baltic Sea States as part of HELCOM tasks (Gulf of Finland, Gulf of Bothnia, the Sound), bilateral and international organizations (Sweden-USSR, Sweden-GDR, Denmark-USSR, Denmark-FRG, ICES, UNEP, CBO etc.

The cooperation with the above mentioned organizations needs to be scrutinized and the effectiveness of the cooperation to be evaluated. The information produced by these organizations should be overviewed, and an analysis made on whether the information has been available and whether the STC has made use of it. If information has not been available measures to activate its exchange in the future should be devised. Also discussion is needed on the possibilities and need for the STC to support increasingly some of the activities of these organizations and to use their expertise in its work.

Special attention should be paid to how the resources and advice offered by ICES including ICES/SCOR group and the Baltic Marine Biologists (BMB) and the Conferences of Baltic Oceanographers (CBO) could be used. The division of work between HELCOM and these organizations as well as the use of information from the Oslo and Paris Commissions should be discussed. It is advisable to intensify the cooperation with other international organizations in

order to benefit from important work going on and to avoid duplication of work. A reporting system may be needed to allow both parties to be aware of the work being done. Better contacts between the secretariats should also be established.

For the work of the STC it is also important to have cooperation with international technical organizations such as IAWPRC (The International Association on Water Pollution Research and Control), which can give high quality information on water pollution control.

2.3 Evaluation of the activities within the STC

The main activities within the framework of the STC consist of monitoring, assessment of the state of the Baltic Sea, compilation of pollution loads, exchange of information in the form of bibliographies, seminars and expert meetings, preparation of criteria and standards for the limitation and control of land-based pollution, and relevant recommendations.

In this section the activities should be evaluated as to whether the present activities are in good balance, whether they should be continued in the next 10-20 years, and whether new activities are seen to be important for the next decades.

3. WAYS AND MEANS OF ACHIEVING THE GOALS OF THE CONVENTION

3.1 The strategy

The practical proposals for the long-term plan of the STC are considered. The activities of the STC should be re-arranged so that more distinct groups of activities should be formed and priorities established. In general, development projects should receive higher priority in the future work. This can be accomplished on the basis of the existing action plan or programme provided that there is active participation of the Contracting Parties.

It is perhaps not always advantageous to have loosely formulated general recommendations. A more definite recommendation is, however, normally acceptable to the countries only at a stage when they know they are in a position to implement it.

A strategy is hence needed to guide the development in such a way that the final goal can be reached and a recommendation be passed in a reasonable time.

The strategy will be drawn up by the STC but the active participation of the Secretariat is needed in negotiating about the strategy for each sector. Also the Lead Country principle could be applied in formulating strategies, which materialize in the organization of seminars, establishment of ad hoc groups and in their programme of work.

Seminars should be fora for exchange of new information. In addition, it should be emphasized that the results of the seminars should not be subjected to the consensus principle because the requirement of consensus only applies to HELCOM. The specialists participating in the seminars should be as individuals responsible for the ideas they present. At the level of ad hoc working groups consensus is not needed. At Committee level consensus is not obligatory but would facilitate discussion at Commission level.

Where advisable, the branchwise approach is recommended in the work of the STC. The strategy should be based on the possibilities offered by best available water pollution control technology, at least until reliable criteria are available and can be adopted.

Emissions normally should be limited at source. Emission standards should take into account the best technical means available and quality objectives used should be based on the latest scientific data. If the state of knowledge is insufficient, a strict limitation of emissions of pollutants at source should be imposed for safety reasons. Emission standards and quality objectives should be reviewed periodically and appropriate time limits should be fixed for this. With either approach adequate environmental monitoring is required. If it shows that the quality of the environment is insufficient, emission controls should be tightened or bans imposed.

The strategy of the STC should be kept under continuous review and be revised as appropriate.

3.2 Steps to achieve the goals

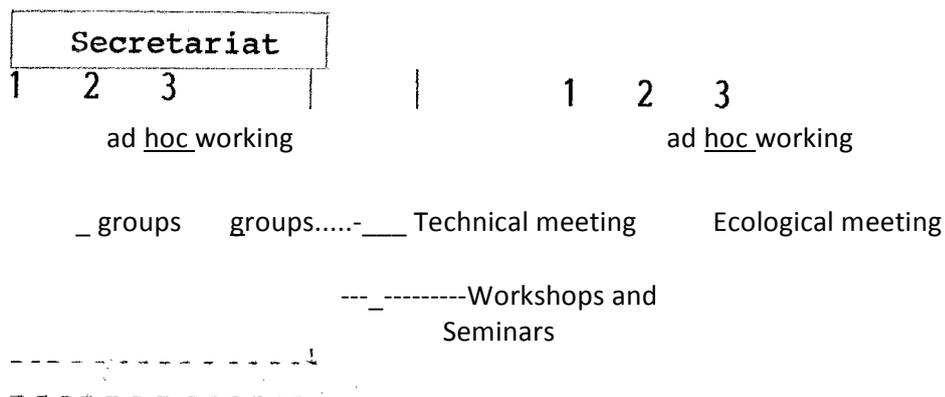
Organization of the STC

To carry out its work more effectively the STC needs an infrastructure of specialized ad hoc working groups or, alternatively, permanent subsidiary bodies. The subsidiary framework could be formed of two distinct sectors consisting of technical ad hoc working groups, on one hand, and ecological groups dealing with e.g. monitoring and assessment questions, on the other. In the proposed organization new information and new technology produced, for example, by seminars or expert meetings would normally pass through relevant ad hoc groups for consideration by the STC. This would enable more thorough evaluation and discussion than is possible at present.

H E L C O M

Secretariat

STC



Lead Countries

This model implies that the STC directly coordinates the work of ad hoc groups assigned for specific projects.

An ad hoc group would normally be nominated for one or two years at a time to solve special limited problems defined by the STC. There could be e.g. technical ad hoc groups on treatment of municipal sewage, on agriculture, on a harmful substance, and ad hoc groups on the marine science side. However, in case of special long-term activities, e.g. for the preparation of the periodic assessments and monitoring, longer period than one year could be given to the ad hoc groups.

Airborne pollution and monitoring of radioactive substances could first be dealt with as a specific monitoring question, later on as a technical problem, and a working group be established accordingly.

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The ad hoc working groups dealing with technical questions could normally all meet at the same time, while the assessment and monitoring groups could have their own simultaneous meetings at some other time. The intention of this arrangement is to centralize practical arrangements, facilitate participation and ease the work load of the Secretariat.

Each ad hoc group would have a chairman and a secretary familiar with the problems concerned, both possibly from the same country. The Secretariat of the Helsinki Commission would coordinate the work of the ad hoc groups and organize the meetings in cooperation with the host country. The report would be produced by each separate group with help from the HELCOM Secretariat. The Secretariat would then make a single "package" of the different working group reports and supply it with a common introduction and a summary.

Seminars and expert meetings

Seminars are organized by the Contracting Parties under the auspices of the Commission but they are not and should not be part of official HELCOM organization. However, in organizing a seminar close contacts are needed between the host country and the Commission, and the STC should use the seminars more systematically to produce information and ideas for its needs.

Seminars are initiated by the Commission, the STC and the Contracting Parties. Being an efficient means of exchanging information, seminars also play an important role in the work of the ad hoc groups.

The information and ideas expressed in the summaries of the seminars could be worked up by the HELCOM Secretariat for consideration in the preparatory bodies of the Commission. If the seminar or a team set up during the seminar work out technical or scientific recommendations with a view to drawing the attention of HELCOM to them, such recommendations would always have to pass through the Secretariat for consideration at the STC. Support would have to be expressed in the preparatory bodies before a recommendation can be put forth to the Commission.

Recommendations and Resolutions

The nature of recommendations can be twofold. The existing recommendations have been made at a relatively early phase and since they must "expand" and "live", some of them are formulated very loosely. The new approach would be to pass a more definite recommendation at a later stage when all the Contracting Parties are ready to accept it. The readiness is achieved through following the strategy expressed by the long-term plan of activities. This encourages the countries to take steps towards a set goal, which at a certain point takes the form of a HELCOR2 Recommendation.

A recommendation would be the mutual ratification of the detailed objective agreed upon by the Contracting Parties. These objectives should be stated clearly and, if possible, in terms of discharge limits, technology to be applied, measures to be taken or as environmental quality objectives. Seminars could be used as a tool in formulating objectives. The objectives should be expressed e.g. as "preliminary recommendations", "resolutions" or "declarations of intent" that activate the countries to take measures.

As it is not fully known to what extent the sea is polluted, whether the effects of pollution are irreversible, or whether there is a limit to the self-purifying capacity of the sea, the general policy should be to take measures as soon as possible without first waiting for the response from the ecosystem.

Timetables

On the basis of the strategy adopted, the STC should determine what ad hoc groups should be convened in the first year, and a tentative plan should be drawn up about the ad hoc groups for the following 1-2 years. The activities should consist of various steps. The time-tables should reflect the level of decisions to be taken at different points of time.

At each STC meeting a decision should be taken about the ad hoc working groups. There may be, for example, cases where a group decides to postpone its work because of a seminar, or to allow a lead country to work, and the STC may meanwhile start a new group.

Economic resources

The resources of the Contracting Parties and the Secretariat are limited. The Secretariat cannot support a great number of meetings. It is therefore important to evaluate how the resources are divided among the STC, the MC and the EGC. If the use of resources is not in balance with the pollution or the risk of pollution caused by each sector, the situation should be rectified.

Cooperation with international organizations and bilateral groups could provide rational means of using the resources. For example, the coordination of scientific expeditions with the Baltic monitoring should be attempted, and the results of seminars arranged by e.g. BMB and CEO should be made available for the Commission. Also other marine scientific organizations could be asked to look at the problems from the pollution aspect.

Draft working structure of the Scientific-Technological Committee in 1985 according to proposals by STC 11

I Meeting of the ecological ad hoc working group 1/85

1. Meeting: Rostock/Warnemünde, GDR (28-31) May 1985
- workshop

2.

Items to be considered:

- First Periodic Assessment, results, conclusions, draft publications

3

Preparations:

- Chairmen and members of the GEA, Conveners and Authors of the First Periodic Assessment, Secretariat of the Commission

4.

Present subsidiary body of the STC:

- GEA (Ad hoc Group of Experts on Assessment of the State of the Marine Environment of the Baltic Sea)

Meeting of the technical ad hoc working groups

1. Meeting: Norrköping, Sweden, 3-6 June 1985 - meeting of two ad hoc groups

2.

Items to be considered:

- 2.1 sewage treatment in urban areas - 2.2 discharges from agriculture

3.

Preparations:

- 2.1 Sweden as the Lead Country - 2.2 Denmark as the Lead Country

4.

Present subsidiary body of the STC: - WGS (Ad hoc Working Group for Discharges of Harmful Sea Area)

on Criteria and Standards Substances into the Baltic

III Meeting of the ecological ad hoc working group II/85

1. Meeting: Kiel, FRG (26-30) August 1985

- 2nd meeting of EGAP (Ad hoc Group of Experts on Airborne Pollution of the Baltic Sea Area)

2. Items to be considered:

- Continuation of the work of the group EGAP on the basis of the decisions by the 6th meeting of the Commission on the proposals made by STC 11

3. Preparations:

- Contracting Parties and the Secretariat of the Helsinki Commission

IV 12th meeting of the STC in Sweden, 16-20 September 1935