

ANNEX 19

REVISED WORK PLAN FOR THE DEVELOPMENT OF A REGULATORY FRAMEWORK FOR THE USE OF ONBOARD CARBON CAPTURE AND STORAGE (OCCS)

Goal: The goal of this work is to develop a regulatory framework for the use of onboard carbon capture and storage (OCCS), in order to reduce net GHG emissions from ships without negatively affecting the environment

Objectives: The work has the following objectives:

- .1 avoiding emissions to air and discharges to sea that are harmful to the environment and ensuring traceability of the captured carbon;
- .2 consider legal barriers that may hinder the use of OCCS and transportation and transfer of the captured carbon to safe permanent storage or utilization;
- .3 facilitate access to certified reception facilities for the value chain for permanent storage or utilization of captured carbon;
- .4 enable recording and reporting of relevant data; and
- .5 develop options that take into account GHG emission reductions from onboard carbon capture in the IMO GHG regulatory framework.

Boundaries (freedoms and constraints):

- .1 issues related to health, safety and the human element will be addressed by the Maritime Safety Committee (MSC) and its sub-committees. MSC and MEPC should liaise to ensure alignment of the overall regulatory framework for onboard carbon capture;
- .2 issues related to accounting of emissions from ships using OCCS will be addressed by the workstreams on further development of the LCA framework, and decisions made in this process will affect the regulatory framework for OCCS;
- .3 the regulatory framework should take a technology-neutral approach and needs to consider the diverse types of technology for OCCS;
- .4 the regulatory framework needs to consider the environmental risks associated with the use of OCCS, and the transfer and discharge to shore; and
- .5 decisions and developments in other workstreams related to the short-term and midterm GHG reduction measures may impact the work and should be considered.

Tasks:

- .1 avoiding emissions to air and discharges to sea that are harmful to the environment and ensuring traceability of the captured carbon;
 - .1 understand and identify the environmental risks of the different onboard carbon capture technologies;
 - .2 develop measures to minimize the negative impact on the environment:
 - .1 develop guidelines on testing, survey, and certification of OCCS, including development of provisions to minimize emissions/dischARGE of substances that are harmful to the environment and ensure the availability of the data needed for LCA calculations;
 - .2 review the existing IMO regulatory framework in a structured manner to identify existing instruments that should be amended, and potential additional guidelines or regulations that may be needed; and
 - .3 consider the need to define the acceptable means of disposal or use of captured carbon;
 - .3 develop specific methodological guidance on OCCS accounting, verification, and certification, building upon the existing OCCS framework in the LCA Guidelines;
 - .4 develop provisions for enforcement to ensure that the OCCS on ships comply with environment regulations and standards, including consideration of what existing regulations and guidelines need to be updated; and
 - .5 review the status of technological development of onboard carbon capture applications, including their potential in reducing GHG emissions from ships;
- .2 consider legal barriers that may hinder the use of OCCS and transportation and transfer of the captured carbon to safe permanent storage or utilization:
 - .1 identify and understand the impact of any legal barriers; and
 - .2 decide on further actions as appropriate;
- .3 facilitate access to certified reception facilities for the value chain for permanent storage or utilization of captured carbon:
 - .1 consider monitoring the development of relevant regulations applicable to facilities for permanent storage or utilization of captured carbon, carbon capture facilities, national regulations, and installation of OCCS on ships;

- .2 consider if and how to address compatibility between ships and reception facilities ashore; and
- .3 engage in a principal discussion on how to address the quality and concentration of the captured carbon delivered ashore;
- .4 enable recording and reporting of relevant data:
 - .1 consider and identify what data should be recorded and reported and how;
 - .2 consider how to enable the traceability of the captured carbon; and
 - .3 update relevant guidelines and provisions as appropriate;
- .5 develop options that take into account GHG emission reductions from onboard carbon capture in the IMO GHG regulatory framework:
 - .1 consider how GHG emission reductions achieved through OCCS could be reflected in the IMO regulatory framework; and
 - .2 update relevant guidelines as needed.

Timing: Aim to complete the work in 2028, and priority tasks as soon as possible. The tasks associated with objective 1 (tasks 1.1 to 1.5) should be prioritized.
