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Exporting CO<sub>2</sub> for Offshore  
Storage – The London  
Protocol's Export Amendment  
and Associated Guidelines and  
Guidance

## International Energy Agency

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## **Abstract**

The London Convention and London Protocol are the global treaties that protect the marine environment from pollution caused by the dumping of wastes. Since 2006, the London Protocol has provided a basis in international environmental law to allow carbon dioxide (CO<sub>2</sub>) storage beneath the seabed when it is safe to do so, and to regulate the injection of CO<sub>2</sub> into sub-seabed geological formations for permanent isolation. However, Article 6 of the London Protocol prohibits the export of waste or other matter for dumping in the marine environment. Therefore in 2019, Contracting Parties to the London Protocol adopted a resolution to allow provisional application of the 2009 amendment to Article 6 of the Protocol to allow export of CO<sub>2</sub> for storage in sub-seabed geological formations in advance of its ratification, which was progressing slowly. This removed the last significant international legal barrier to carbon capture and storage (CCS), and means that CO<sub>2</sub> can be transported across international borders to offshore storage. This report describes the background, details and requirements of this provisional application of the CCS export amendment, and the details and requirements provided by the two associated guideline and guidance documents, and their implications. This report is intended to assist project operators and regulators in accessing and applying the CO<sub>2</sub> export aspects of the London Protocol.

## **1. Background**

The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Convention) and the 1996 Protocol to the Convention (London Protocol), are two free-standing global treaties that have long been at the forefront of protecting the marine environment from pollution caused by the dumping of wastes at sea [1]. The London Protocol was adopted in 1996, building on and modernizing the principles developed under the London Convention, it has been in force since 24 March 2006. Under the Protocol all dumping is prohibited, with the exception of certain categories of wastes or other matter listed in Annex I, this includes dredged material, fish waste and inert, inorganic geological material.

In 2006 amendments to Annex I of the London Protocol were proposed by the United Kingdom, Norway and others to include CO<sub>2</sub> streams from carbon capture processes for storage to the list of wastes or other matter that may be considered for dumping and therefore to regulate “carbon-dioxide streams from CO<sub>2</sub> capture processes for sequestration”. The Contracting Parties to the London Protocol discussed at great length, drafted and approved the carbon capture and storage (CCS) amendments in 2006 and they entered into force in 2007 [2], thereby creating a legal basis in international environmental law to regulate the injection of CO<sub>2</sub> waste streams into sub-seabed geological formations for permanent isolation.

However, Article 6 of the London Protocol prohibits export of waste or other matter for dumping in the marine environment, the intention being to stop Parties exporting their waste to non-Parties as a backdoor route of dumping. Cross border transport of carbon dioxide for the purpose of permanent geological storage below the seabed (CCS) was therefore prohibited, but it was identified that there may well be a need for such export in the situations where a Party does not have sufficient suitable geological storage capacity but may still wish to use CCS to reduce emissions.

**ARTICLE 6. EXPORT OF WASTES OR OTHER MATTER.**

*“Contracting Parties shall not allow the export of wastes or other matter to other countries for dumping or incineration at sea.” [1]*

In 2009, Norway made a formal proposal to address this export prohibition with an amendment to Article 6 to allow export of CO<sub>2</sub> for sub-seabed geological storage. This was duly considered by the Contracting Parties to the London Protocol (LP) and in 2009 was adopted by a vote [3].

**AMENDMENT TO ARTICLE 6 OF THE LONDON PROTOCOL**

*“2 Notwithstanding paragraph 1, the export of carbon dioxide streams for disposal in accordance with Annex 1 may occur, provided that an agreement or arrangement has been entered into by the countries concerned. Such an agreement or arrangement shall include:*

- 2.1 confirmation and allocation of permitting responsibilities between the exporting and receiving countries, consistent with the provisions of this Protocol and other applicable international law; and*
- 2.2 in the case of export to non-Contracting Parties, provisions at a minimum equivalent to those contained in this Protocol, including those relating to the issuance of permits and permit conditions for complying with the provisions of Annex 2, to ensure that the agreement or arrangement does not derogate from the obligations of Contracting Parties under this Protocol to protect and preserve the marine environment.*

*A Contracting Party entering into such an agreement or arrangement shall notify it to the Organization.” [3]*

The 2009 amendment effectively allows CO<sub>2</sub> streams to be exported for CCS purposes (provided, that the protection standards of all other LP requirements have been met) between cooperating countries. The responsibilities have to be clearly agreed between cooperating countries, and the same control conditions need to be applied if the receiving country is not a party to the Protocol (which has requirements for permitting based on risk assessment and environmental impact, contained in the CO<sub>2</sub> Specific Guidelines [4]).

However, the 2009 export amendment is not yet in force as it needs to be ratified by being formally accepted by two-thirds of the Parties to the London Protocol and will then come into force globally 60 days later. Acceptance had been extremely slow with just six of the 53 Contracting Parties, Norway, UK, Netherlands, Iran, Finland and Estonia, having accepted the amendment by 2019. Meaning that there was still a legal barrier to exporting CO<sub>2</sub> from one country to another for offshore geological storage projects.

In light of the challenges posed in bringing the amendment into force, interested parties examined potential options to address the issue. In 2011 the International Energy Agency produced a Working Paper, “CCS and the London Protocol: Options for Enabling Transboundary CO<sub>2</sub> Transfer” [5]. This

described alternative options for addressing this legal barrier, and these alternatives have more recently been presented and discussed at the 3<sup>rd</sup> Offshore CCS workshop in Norway in June 2018 [6] and at GHGT-14 [7].

## 2. Permitting Guidelines and Guidance for Transboundary CCS

In 2006, prior to the adoption of the CCS amendments to Annex I of the London Protocol to regulate CO<sub>2</sub> sequestration in sub-seabed geological formations, Contracting Parties developed and then adopted the “Risk Assessment and Management Framework for CO<sub>2</sub> Sequestration in Sub-Seabed Geological Structures” [8]. This Framework was developed to ensure compatibility with Annex 2 to the London Protocol, to identify relevant gaps in knowledge and to reach a view on the implications of this practice for the marine environment.

Including CCS under the London Protocol meant that such activities would be subject to the licensing arrangements contained in the instrument as well as a mandatory impact assessment. Therefore, in line with guidance on all other permitted wastes and to facilitate the licensing process, the Contracting Parties adopted Specific Guidelines on Assessment of CO<sub>2</sub> Streams for Disposal into a Sub-Seabed Geological Formations [4] (the CO<sub>2</sub> Specific Guidelines) in 2007. These guidelines provide the assessments and considerations required in issuing a permit. They address CO<sub>2</sub> stream characterization, site selection and characterization, environmental impact assessment, risk assessment, monitoring, mitigation and remediation plans, and risk management. Their role is to ensure allowed activities are undertaken in a manner that meets all the requirements of the London Protocol with minimum impact on the marine environment over the short- and long-term.

Following the 2009 export amendment, work commenced to revise the CO<sub>2</sub> Specific Guidelines to take into account transboundary activities, both export and migration. Through this work, it was decided that sub-seabed migration across national boundaries does not constitute export, and so was not prohibited by Article 6, but was not covered by the CO<sub>2</sub> Specific Guidelines. Progress was made in 2012 by separating the guidance into technical and permitting responsibility issues, and so two new documents were developed: revised CO<sub>2</sub> Specific Guidelines covering subsurface transboundary migration; and Guidance on the implementation of Article 6.2 on the export of carbon dioxide streams for disposal in sub-seabed geological formations for the purpose of sequestration – separating out the permitting responsibilities and standards from the Specific Guidelines.

The revised CO<sub>2</sub> Specific Guidelines were finalized and adopted on 2 November 2012 [9]. The guidelines are confirmed to apply also when the 2009 CO<sub>2</sub> export amendment comes into force. Given the earlier view on subsurface transboundary movement not being an export and therefore not prohibited, they provide a definition of subsurface transboundary movement and confirm and clarify this view in a footnote as follows: *“Transboundary movement of CO<sub>2</sub> streams after injection is defined as movement of CO<sub>2</sub> streams across a national boundary within a transboundary sub-seabed geological formation after the CO<sub>2</sub> streams have been injected. The transboundary sub-seabed geological formations may extend into the jurisdiction of another state or into the high seas. Transboundary movement of CO<sub>2</sub> streams after injection is not export in the sense of Article 6, of the London Protocol (see resolution LP.3(4), adopted on 30 October 2009, Recital 12).”* [9].

The revised CO<sub>2</sub> Specific Guidelines also confirm that where the sub-seabed geological formations could be used by more than one country or where there is potential for subsurface transboundary movement, then the responsibility for implementation of these guidelines is that of the Contracting Party where injection occurs. That Contracting Party is also required to cooperate with other relevant

Contracting Parties, other States and other relevant entities to ensure adequate sharing of information in regards to the characterization of the geological formation, i.e. capacity and injectivity, storage integrity, potential migration and leakage pathways, etc. [9]

This means that permits can now be issued under the London Protocol for transboundary storage by London Protocol Parties.

The other transboundary aspect to be resolved was the development of guidance to determine the responsibilities of Parties under an “agreement or arrangement”. This was considered at the annual meeting of Contracting Parties to the London Protocol in 2013, at which a new guidance document entitled “Guidance on the Implementation of Article 6.2 on the Export of CO<sub>2</sub> Streams for Disposal in Sub-seabed Geological Formations for the purpose of Sequestration” [10] was developed, discussed and adopted. This guidance document sets out the responsibilities of Parties and the requirements of the agreements or arrangements which must be entered into by Parties who wish to undertake export of CO<sub>2</sub>, including if to non-Parties, so as to ensure that the standard of requirements of the London Protocol on permitting CO<sub>2</sub> geological storage are maintained. Noting that this guidance defines the word “agreement” as a legally binding agreement, which between States which could take the form, for example, of a memorandum of agreement or a treaty, whereas an “arrangement” between States refers to something non-binding, such as a memorandum of understanding. While there is flexibility given between the two States as to the content of their agreement or arrangement, it must be consistent with the Protocol's provisions. Allocation of permitting responsibilities between exporting and receiving countries must be confirmed in advance of export, and notified to the IMO. A Contracting Party is responsible for the issuance of a permit for where a CO<sub>2</sub> stream is loaded onto a vessel in its territory and also where a vessel flying its flag loads a CO<sub>2</sub> stream in the territory of a non-Contracting Party for export to another country. *“Depending on the facts of a given export scenario, there could be several countries involved, and therefore the agreement or arrangement would need to reflect the appropriate permitting responsibilities of each”* [10]. Both Parties have to issue permits to meet the Protocol requirements. The guidance recognises that it is most likely that the exporting Party will be best able to characterize the composition, properties and quantity of the CO<sub>2</sub> stream. The exporting Party would then share that characterization with the importing Party under the agreement or arrangement. The guidance recognises that the receiving Party is in a better position to select and assess the storage site and to share that characterization with the exporting Party. Similarly, the Party in whose territory the storage site is located is in the better position to assess the potential effects, and to verify the compliance, monitoring and risk management arrangements, and to share those assessments with the exporting Party. As permits have to be issued by both Party, the competent authorities in each Party should apply the CO<sub>2</sub> Specific Guidelines and use shared data [10].

With exports to non-Contracting Parties, it is the full responsibility of the Contracting Party to ensure *“that the provisions of the agreement or arrangement must at a minimum be equivalent to those contained in the Protocol – including those relating to the issuing of permits and permit condition”* [10]. This is the means of ensuring the same level of environmental protection is provided for a non-Party storing a Party's CO<sub>2</sub>. The exporting Party is recognized as best placed to characterize the CO<sub>2</sub> stream. The receiving country is recognized as best placed to select and characterize the storage site, and to assess the potential environmental effects, to verify compliance and field monitoring, and risk management arrangements, and to share that data with the exporting Party.

In the case of a breach of an agreement or arrangement by a non-Contracting Party, the Contracting Party should *“engage in consultations to rectify”*. In the case of a *“significant ongoing breach”* the Contracting Party is required to *“terminate the export”* [10].

The guidance allows for learning from experience in practice. *“It may be that over time there will be a need to develop additional best practices for implementing the amendments to Article 6. The optimal roles and responsibilities may become apparent as practical situations are negotiated over time, including which information is best supplied by which party to the transaction. Furthermore, it is likely that developing a final agreement or arrangement will involve a good deal of back and forth cooperation between two Contracting Parties, or between a Contracting Party and a non-Contracting Party. It is thus proposed that this guidance be reviewed after the amendment has been in force for a reasonable period of time in order to assess whether this guidance should be supplemented or amended.”* [10]

This guidance document on the “agreements or arrangements” is intended to assist Contracting Parties for whom the 2009 amendment enters into force with its implementation, highlighting the linkages to the assessment in the preceding Specific Guidelines. The adoption of this guidance meant that permits could be issued under the London Protocol for export of CO<sub>2</sub> for offshore geological storage by London Protocol Parties, whenever it became allowed.

### **3. Addressing the Legal Barrier to the Export of CO<sub>2</sub>**

As a number of CCS projects around the North Sea basin that planned to receive CO<sub>2</sub> from other sources (including from other countries, for geological storage in sub-seabed formations) were moving forward, the lack of acceptances of the 2009 amendment to Article 6 of the London Protocol was identified as a legal and regulatory barrier to these projects. The most notable of these was the Northern Lights Project in Norway, which is part of the Norwegian full-scale CCS project that includes capture of CO<sub>2</sub> from industrial capture sources in the Oslo-fjord region (cement and waste-to-energy) and shipping of liquid CO<sub>2</sub> from these industrial capture sites to an onshore terminal on the Norwegian west coast. From there, the liquefied CO<sub>2</sub> will be transported by pipeline to an offshore storage location subsea in the North Sea, for permanent storage [11].

In 2019, Norway and the Netherlands looked into options to address this barrier to cross-national collaboration on CO<sub>2</sub> capture and permanent geological storage in sub seabed formations, in line with the Vienna Convention on the Law of the Treaties (VCLT) Article 25. This article provides that a treaty or part of a treaty is applied provisionally pending its entry into force if; (a) the treaty itself so provides; or (b) the negotiating States have in some other manner so agreed.

Consequently, there was a proposed Resolution on the provisional application of the 2009 amendment to Article 6 of the London Protocol co-sponsored by the Netherlands and Norway [12][13] submitted to the Forty-first Consultative Meeting of Contracting Parties to the London Convention and Fourteenth of Contracting Parties to the London Protocol (LC41/LP14) held from 7 to 11 October 2019.

A provisional application in this case was identified to be an interim solution to enable two countries to apply the 2009 CO<sub>2</sub> export amendment, pending its entry into force. The rationale being to allow states to give their consent to cross-border transport of CO<sub>2</sub> for the purpose of geological storage without being non-compliant with international commitments. The co-sponsors further argued that the London Protocol did not provide for provisional application in itself. Therefore, provisional application of an amendment to the London Protocol could be based on an agreement between the negotiating States, according to the VCLT, which provided the legal basis for provisional application of a treaty or part of a treaty in international law.

Following extensive discussions on the proposal in plenary at the Meeting of Contracting Parties in 2019, the meeting Chair concluded that there was overwhelming support for the resolution proposed by the co-sponsors, however there were concerns raised by the observer from Greenpeace International and by the observer from ACOPS. The Chair also highlighted the importance of an emphasis on CO<sub>2</sub> source reduction and control, and on sharing information on projects and agreements entered into pursuant to provisional application.

The Meeting of Contracting Parties subsequently established a drafting group to finalize the text of the proposed resolution on the provisional application taking into account decisions made in plenary which included, to ensure that priority is given to reduction and control of CO<sub>2</sub>, and to encourage information-sharing. The Report of the Drafting Group on the Proposed Resolution on the Provisional Application of the 2009 Amendment to Article 6 of the London Protocol addressed these issues and strengthened the language in the resolution to emphasize CO<sub>2</sub> reduction and control, included text to urge States to share information on the provisional application of the amendment and to recognize the relevance of recent special reports by IPCC.

On 11 October 2019, following further discussion, the Meeting of Contracting Parties approved the report of the Drafting Group, and:

- .1 adopted resolution LP.5(14) on the provisional application of the 2009 amendment to article 6 of the London Protocol [13]; and
- .2 encouraged Parties to accept the 2009 amendment to Article 6 noting that this was a crucial element of the 2006 amendments that could make CCS as a climate change mitigation technology a success and contribute to meeting the climate targets set in the Paris Agreement [14].

To note, IEAGHG were the only CCS-specific organisation present at LC41/LP14 and hence actively supported the Netherlands and Norwegian proposal with technical evidence-base relating to offshore CCS developments [15], the new IPCC Ocean and Cryosphere report as further evidence for the need to mitigate CO<sub>2</sub> emissions [16], and facilitated a presentation be given to delegates by the STEMM-CCS project on marine monitoring advancements [17]. IEAGHG were active in both the Plenary and in the Drafting Group that worked on the details of the Resolution, for example providing evidence-based rebuttals to concerns raised. It took some four hours of Drafting Group meetings to finalise the details, which took into account a range of views by Parties and by Observers such as Greenpeace and IEAGHG.

#### **4. The Provisional Application**

The final text of the Resolution LP.5(14) on the Provisional Application of the 2009 Amendment to Article 6 of the London Protocol was subsequently published in the LC41/LP14 meeting report in 2020 [18]. It has the following operative clauses:

1. *DECIDES to allow for the provisional application of the 2009 amendment pending its entry into force by those Contracting Parties which have deposited a declaration on provisional application of the 2009 amendment;*
2. *INVITES Contracting Parties to deposit with the Depositary a declaration on provisional application of the 2009 amendment of the London Protocol pending its entry into force;*

3. FURTHER RECALLS *the obligation to notify the Depository of agreements or arrangements mentioned in article 6, paragraph 2 of the London Protocol (as amended by resolution LP.3(4));*

4. AFFIRMS *that the export of carbon dioxide under the provisional application of article 6 of the London Protocol (as amended by resolution LP.3(4)), and in compliance with the requirements of paragraph 2 of the article (as amended by resolution LP.3(4)) will not be in breach of article 6 as in force at the time of the export; and*

5. URGES Contracting Parties *to consider accepting the amendment to article 6 of the London Protocol adopted through resolution LP.3(4).* [18]

It is important to acknowledge that the adoption of Resolution LP.5(14) was made possible through the significant work that Contracting Parties to the London Protocol had undertaken to provide a basis in international environmental law to allow CO<sub>2</sub> storage beneath the seabed when it is safe to do so, and to regulate the injection of CO<sub>2</sub> waste streams into sub-seabed geological formations for permanent isolation.

The provisional application of the 2009 amendment to Article 6 of the London Protocol now means that two or more countries can agree to export CO<sub>2</sub> for geological storage. In order to do so they must deposit a formal declaration of provisional application with the Secretary-General of the International Maritime Organization (IMO), which provides the Secretariat for the London Convention and the London Protocol and is the depositary organization for the London Protocol. Countries must also notify the IMO of any agreements and arrangements for permitting and responsibilities between the Parties, following the existing guidance [10].

The resolution includes an acknowledgement that national acceptance processes of the 2009 amendment have shown to be time consuming and that, despite great efforts, only a few acceptances have been made to date. However, it also stresses that provisional application of the 2009 amendment should only be seen as for a preliminary solution pending further acceptances and formal entry into force, therefore current and prospective Contracting Parties to the London Protocol are urged to consider accepting the amendment to article 6 of the London Protocol adopted through resolution LP.3(4).

Both Norway and the IMO issued press releases to mark this achievement [19] [20].

At the 2020 meeting of Contracting Parties to the London Protocol it was reported that the IMO had received declarations of provisional application of the 2009 amendment from the Governments of Norway and the Netherlands [21].

## **5. Implications**

The provisional application of the 2009 amendment to Article 6 of the London Protocol was needed for the Norwegian government to be able to proceed with their formal proposal in September 2020 for their Longship project and Northern Lights transport and storage facility, which plans to receive CO<sub>2</sub> from across Northern Europe [22]. The Norwegian Government then approved funding for this project in December 2020 [23]. It is envisaged this project will open up many opportunities for CO<sub>2</sub> capture from industrial facilities across Europe, such as iron and steel plant, cement, LNG, refineries, which would have not yet considered CO<sub>2</sub> capture if they had to develop their own geological storage.

The provisional application is also helping generate new interest in further transboundary CCS projects in the North Sea region.

Whilst the first “agreements or arrangements” are yet to be produced, and will set an example for the level of detail required, it is intended that they allow for some flexibility in the details and that providing and agreeing their details would not constitute a regulatory barrier. Prior to the 2019 resolution on export, in 2016 IEAGHG commissioned TNO to assess the compliance of a real project with the requirements of the London Protocol. This work examined the permitting of the proposed P18-4 storage site in The Netherlands (the original site of the storage for the then proposed ROAD project). This storage project had received its storage permit under Dutch law and complied with the EU CCS Directive requirements, which themselves included alignment with the OSPAR CCS requirements, which were derived from the London Protocol requirements. This work indicated overall technical compliance with the 2012 CO<sub>2</sub> Specific Guidelines, and suggests that their requirements are relevant and achievable by regulators and by project developers, and that the transparency of compliance assessment is possible in ensuring the protection of the marine environment [24]. This work was presented to the 2016 annual meeting of the London Protocol [25].

## **6. Conclusions**

The provisional application of the 2009 amendment to Article 6 of the London Protocol allows countries to agree to export and receive CO<sub>2</sub> for offshore geological storage. This removed the last significant international legal barrier to CCS and means that CO<sub>2</sub> can be transported across international borders to offshore storage. Because of the previous work by London Protocol Parties on the requirements for permitting and responsibilities, the environmental protection from the original 2006 amendment and subsequent guidelines is maintained for transboundary CCS activities. This is an enabling event in the truest form for CCS, and consequently also towards the immense CO<sub>2</sub> mitigation which is needed to achieve the Paris Agreement goals.

This report describes the background, details and requirements of this provisional application of the CCS export amendment, and the details and requirements provided by the two associated guideline and guidance documents, and their implications. This report is intended to assist project operators and regulators in accessing and applying the CO<sub>2</sub> export aspects of the London Protocol.

## Appendix 1 – Full text of the adopted 2019 decision, with recitals

### “ANNEX 2

#### **RESOLUTION LP.5(14) ON THE PROVISIONAL APPLICATION OF THE 2009 AMENDMENT TO ARTICLE 6 OF THE LONDON PROTOCOL (Adopted on 11 October 2019) THE FOURTEENTH MEETING OF CONTRACTING PARTIES TO THE 1996 PROTOCOL TO THE CONVENTION ON THE PREVENTION OF MARINE POLLUTION BY DUMPING OF WASTES AND OTHER MATTER, 1972**

RECALLING the objectives of the 1996 Protocol to the London Convention ("London Protocol") that include the protection and preservation of the marine environment from all sources of pollution;

REITERATING the serious concern regarding the implications for the marine environment of climate change and ocean acidification, as a result of elevated levels of carbon dioxide in the atmosphere;

RECALLING the adoption and entry into force of the amendment which included the sequestration of carbon dioxide streams in sub-seabed geological formations in annex 1 to the London Protocol made through resolution LP.1(1) (2006);

REITERATING that resolution LP.1(1) recognizes that carbon dioxide capture and sequestration should not be considered as a substitute to other measures to reduce carbon dioxide emissions, but considered such sequestration as one of a portfolio of options to reduce levels of atmospheric carbon dioxide and as an important interim solution, also as referred to in paragraph 1.5 of the *2012 Specific Guidelines for the assessment of carbon dioxide for disposal into sub-seabed geological formations*;

STRESSING that the disposal of carbon dioxide streams into sub-seabed geological formations does not remove the obligation under the London Protocol to reduce the need for such disposal and the commitments under UNFCCC to reduce greenhouse gas emissions, taking into account the recent special reports of IPCC;

EMPHASIZING the need to further develop low carbon forms of energy;

NOTING that not all States have suitable sub-seabed geological formations for the sequestration of carbon dioxide streams;

RECALLING the work of the Legal and Technical Working Group on Transboundary CO<sub>2</sub> Sequestration Issues and its conclusions, as set out in its report (document LP/CO<sub>2</sub> 1/8), and the work of the Intersessional Correspondence Group on Transboundary CO<sub>2</sub> Sequestration Issues and its conclusions, as set out in its report (document LC 31/5);

REITERATING the conclusion of Contracting Parties in 2008 (document LP 30/16) that the London Protocol should not constitute a barrier to the transboundary movement of carbon dioxide streams to other States for disposal as a measure to mitigate climate change and ocean acidification; LC 41/17/Add.1 Annex 2, page 2

REFERRING to the adoption of the amendment to article 6 of the London Protocol at the meeting of the Contracting Parties on 30 October 2009 through resolution LP.3(4) (2009 amendment), to allow for the export of carbon dioxide for the purpose of permanent storage in geological formations below the seabed;

ENCOURAGING further acceptances of the amendment to article 6 of the London Protocol in accordance with article 21 of the London Protocol;

STRESSING the need of the deployment of carbon capture and sequestration in order to reach the climate targets in the Paris Agreement, repeated by IPCC in its recent special reports;

RECALLING that national acceptance processes of the 2009 amendment have shown to be time consuming and that, despite great efforts, only a few acceptances have been made;

WELCOMING the proposal for a preliminary solution suggesting provisional application of the 2009 amendment pending further acceptances and formal entry into force;

EMPHASIZING that neither the 2009 amendment nor this resolution should be interpreted as legitimizing the export of any other waste or other matter to other States for disposal;

EMPHASIZING ALSO that provisional application of the 2009 amendment of the London Protocol does not set any precedent as to the use of provisional application within the London Convention or London Protocol;

URGING States to share the information on the provisional application of the amendment, including agreements or arrangements entered into between exporting and receiving States and experience with the application of the *2012 Specific Guidelines for the assessment of carbon dioxide for disposal into sub-seabed geological formations* within that context,

1 DECIDES to allow for the provisional application of the 2009 amendment pending its entry into force by those Contracting Parties which have deposited a declaration on provisional application of the 2009 amendment;

2 INVITES Contracting Parties to deposit with the Depositary a declaration on provisional application of the 2009 amendment of the London Protocol pending its entry into force;

3 FURTHER RECALLS the obligation to notify the Depositary of agreements or arrangements mentioned in article 6, paragraph 2 of the London Protocol (as amended by resolution LP.3(4));

4 AFFIRMS that the export of carbon dioxide under the provisional application of article 6 of the London Protocol (as amended by resolution LP.3(4)), and in compliance with the requirements of paragraph 2 of the article (as amended by resolution LP.3(4)) will not be in breach of article 6 as in force at the time of the export; and

5 URGES Contracting Parties to consider accepting the amendment to article 6 of the London Protocol adopted through resolution LP.3(4). “[18]

## References

- [1] Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (London Convention 1972). Available at: <https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/LC1972.pdf>  
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