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**Carbon dioxide capture, transportation and geological storage -
Vocabulary - Cross cutting terms**

二氧化碳捕集、运输和地质封存 词汇 共性术语

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document adopts ISO 27917:2017 "Vocabulary and terminology for carbon dioxide capture, transport and geological storage".

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Environmental Management (SAC/TC207).

Introduction

The objectives of this document are as follows.

---Provide terminology for carbon dioxide capture, transport, and geological storage [including enhanced oil recovery (EOR) storage via carbon dioxide flooding].

A comprehensive list of its definitions is provided to facilitate communication among the following parties.

- Experts involved in developing standards for carbon dioxide capture, transport, and geological storage;
- Other stakeholders involved in carbon dioxide capture, transport and geological storage.

---This lays the foundation for reaching a consensus on all future standards for carbon dioxide capture, transport, and geological storage.

Vocabulary of carbon dioxide capture, transport and geological storage Common terms

1 Scope

This document defines common terms for carbon dioxide (CO₂) capture, transport, and geological storage, with geological storage including oil recovery via CO₂ enhancement.

Enhanced oil recovery (EOR) storage.

The sealing described in this document only pertains to underground geological sealing of carbon dioxide.

The terminology is divided into the following categories.

---General terms and definitions related to carbon dioxide;

---General terms and definitions related to carbon dioxide capture, transport and storage;

---General terms and definitions related to the monitoring and measurement performance of carbon dioxide capture, transport, and geological storage;

---General terms and definitions related to risk;

---General terms and definitions related to stakeholders.

Abbreviations related to carbon dioxide capture, transport and geological storage are listed in Appendix A.

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 General terms and definitions related to carbon dioxide capture, transport and storage

3.1.1

The process of separating carbon dioxide from industrial and energy-related sources, transporting it and injecting it into geological structures, thereby isolating it from the atmosphere for a long period of time.

Note 1: CCS is often referred to as carbon capture and storage, but this terminology is inaccurate and not recommended because the goal is to capture carbon dioxide, not to capture carbon dioxide.

Carbon. Afforestation is another form of carbon capture, but to be precise, afforestation is

not a process of removing carbon dioxide from industrial emission sources.

Note 2: In English, sequestration is also used as a substitute for storage. Sequestration is more general than storage and may also refer to...

Biological processes (the absorption of carbon by organisms), therefore, "storage" is a better term in English.

Note 3: Long-term refers to the minimum period required to consider geological sequestration of carbon dioxide as an effective and environmentally safe climate change mitigation solution.

Note 4: Carbon dioxide capture, utilization (or use), and storage (CCUS) encompasses the concept of isolating carbon dioxide from the atmosphere and potentially producing beneficial results.

For carbon dioxide to achieve long-term isolation through sequestration within geological structures, CCUS is included in the definition of CCS. CCU refers to carbon dioxide that is not sequestered through geological structures.

Carbon capture and utilization through structural sequestration.

Note 5: CCS should also ensure long-term isolation of carbon dioxide from oceans, lakes, drinking water supplies and other natural resources.

3.1.2

Carbon Capture and Storage (CCS) project lifecycle Note. The CCS project lifecycle mainly includes concept, design, approval, construction, operation, monitoring, measurement and verification, decommissioning, closure, and post-closure (see Appendix B).