

**BUREAU OF INDIAN STANDARDS**

DRAFT FOR COMMENTS ONLY

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*Draft Indian Standard*

**CARBON DIOXIDE CAPTURE, TRANSPORTATION AND  
GEOLOGICAL STORAGE – CARBON DIOXIDE STORAGE  
USING ENHANCED OIL RECOVERY (CO<sub>2</sub> – EOR)**

भारतीय मानक मसौदा

कार्बन डाइऑक्साइड कैप्चर, परिवहन और भूवैज्ञानिक भंडारण -  
उन्नत तेल पुनर्प्राप्ति (सीओ<sub>2</sub> - ईओआर) का उपयोग करके कार्बन  
डाइऑक्साइड भंडारण

ICS 13.020.40

Environmental Management Sectional Committee, CHD 34

**Last date for Comments: 20 June 2024**

**NATIONAL FOREWORD**

(Formal clause to be added)

Carbon dioxide enhanced oil recovery (CO<sub>2</sub> – EOR) is a technique for increasing the recovery of hydrocarbons from an oil field.

This standard applies to quantifying and documenting the total CO<sub>2</sub> (and optionally the anthropogenic portion of the CO<sub>2</sub>) that is stored in association with CO<sub>2</sub> – EOR. The standard recognizes that CO<sub>2</sub> EOR is principally an oil recovery operation. Associated with this oil recovery, however, safe and long term CO<sub>2</sub> storage occurs. The absence of an accepted standard for demonstrating the safe, long-term containment of CO<sub>2</sub> in association with CO<sub>2</sub> EOR and documenting the quantity of associated stored CO<sub>2</sub> constitutes one of the barriers to the increased use of anthropogenic CO<sub>2</sub> in CO<sub>2</sub> – EOR operations. The purpose of this standard is to remove that barrier and thereby facilitate the exchange of goods and services related to the increased use and emissions reductions through associated storage by providing methods for demonstrating the safe, long term containment of, and determining the quantity of CO<sub>2</sub> stored

in association with CO<sub>2</sub> – EOR. The standard does not address the financial consequences that may or may not result from documenting storage of CO<sub>2</sub> in associated with CO<sub>2</sub> –EOR operations.

This standard does not provide requirements for the selection, characterization or permitting of sites for CO<sub>2</sub> –EOR projects because those sites are selected, characterized and permitted pursuant to requirements and standards applicable to oil and gas exploration and production. Likewise, this standard does not specify environment, health and safety protections or corrective action and mitigation requirements that are provided by the regulations and standards applicable to all hydrocarbon production operations. This standard does provide requirements for demonstrating that the site in question is adequate to provide safe, long-term containment of CO<sub>2</sub> for demonstrating that the CO<sub>2</sub> flood is operated in a way to assure containment of the CO<sub>2</sub> in the EOR complex, and for quantifying associated storage.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.