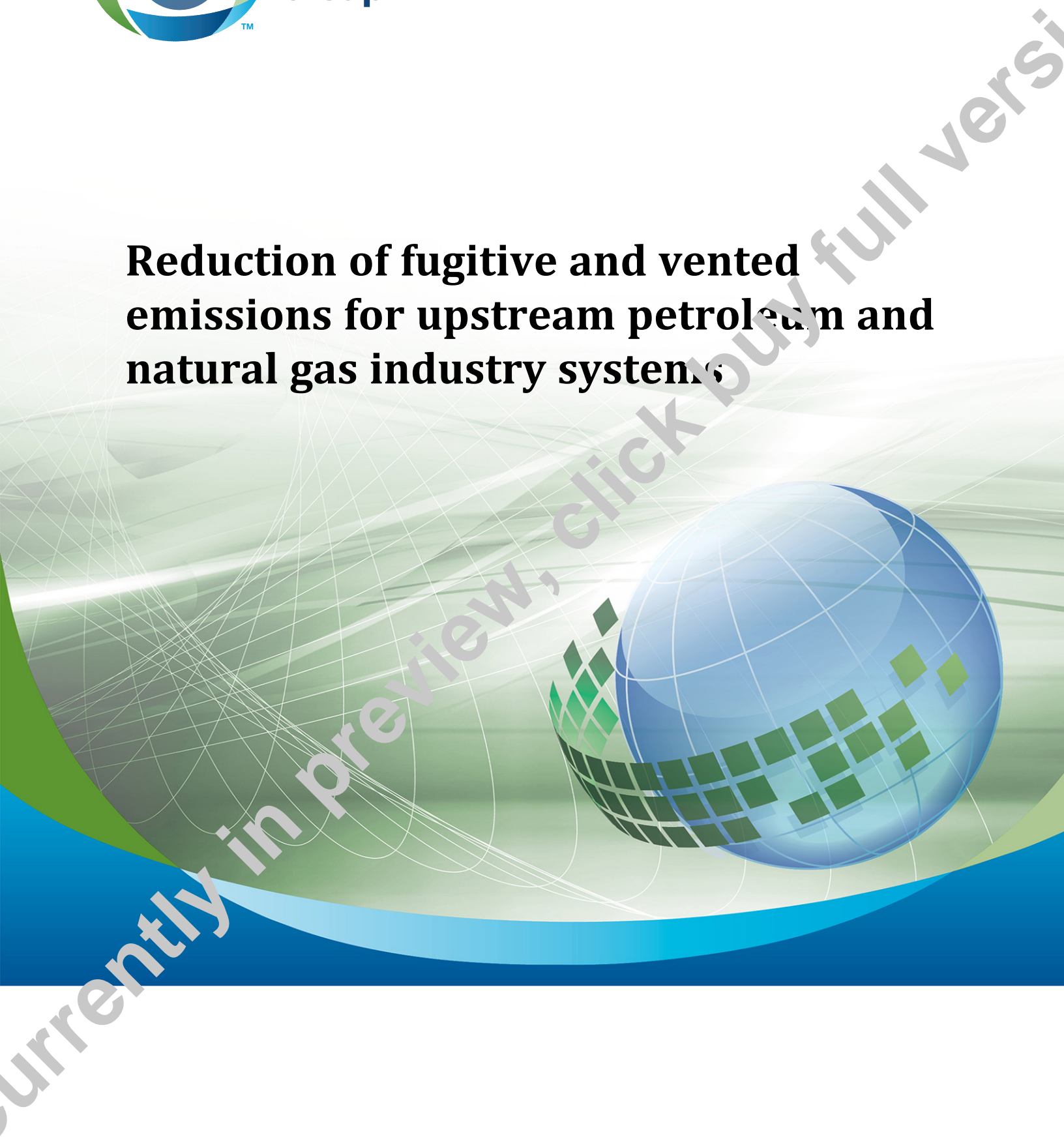




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Z620.1-16

Reduction of fugitive and vented emissions for upstream petroleum and natural gas industry systems



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Preface

This is the first edition of CSA Z620.1, *Reduction of fugitive and vented emissions for upstream petroleum and natural gas industry systems*.

This Standard uses pollutant minimization through control at source. This approach allows users to apply this Standard across the petroleum and natural gas industry.

This Standard is one of several standards on fugitive and vented emissions across different sectors of the oil and gas industry. Therefore, this Standard should be read in conjunction with other legislation, regulations, best practices, policies, standards, and applicable codes.

CSA Group acknowledges that the development of this Standard was made possible, in part, by the support of the British Columbia Oil and Gas Commission, the Canadian Association of Petroleum Producers (CAPP), the National Energy Board, the Alberta Energy Regulator, and the Technical Committee members and their organizations.

This Standard was prepared by the Technical Committee on Flaring, Venting and Fugitive Emissions, under the jurisdiction of the Strategic Steering Committee on Petroleum and Natural Gas Industry Systems, and has been formally approved by the Technical Committee.

Notes:

- 1) Use of the singular does not exclude the plural (and vice versa) when the sense allows.
- 2) Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.
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 - a) Standard designation (number);
 - b) relevant clause, table, and/or figure number;
 - c) wording of the proposed change;
 - d) rationale for the change.

Z620.1-16

Reduction of fugitive and vented emissions for upstream petroleum and natural gas industry systems

0 Introduction

This Standard applies to unintentional and intentional hydrocarbon gas releases to the atmosphere. These releases are often referred to as fugitive or vented emissions.

This Standard is intended to provide minimum requirements, guidance, and best practices for the reduction or, where practicable, elimination of fugitive and vented emissions from the upstream oil and natural gas industry. Implementation of this Standard can also contribute to a safe work environment.

The development of this Standard considered the following elements:

- a) resource conservation efforts;
- b) air quality and greenhouse gas issues;
- c) environmental concerns; and
- d) economics, feasibility, and available technologies.

1 Scope

1.1

This Standard specifies criteria to develop emission reduction practices and programs.

1.2

This Standard addresses fugitive and vented emissions from point sources in the following sectors (see Figure 1) of the upstream oil and gas industry from wells, pipelines, and facilities associated with

- a) crude oil production and shale oil;
- b) oil sands – in situ bitumen production, including thermal (i.e., steam-assisted gravity drainage and cyclic steam stimulation) and non-thermal (i.e., water and polymer injection schemes) projects;
- c) natural gas production, including conventional, coal bed methane, and shale gas; and
- d) natural gas processing.

Application of this Standard to new and existing wells, pipelines, and facilities is specified within each clause of the Standard.

1.3

This Standard does not include requirements for fugitive and vented emissions from vent sources or area sources for the following sectors:

- a) crude oil terminals, including pipeline and rail terminals
- b) downstream sector (including refineries and upgraders);
- c) transmission and distribution applications;
- d) oil sands – mining operations;