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# **Emergency preparedness and response for petroleum and natural gas industry systems**

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## CSA Group

- Independent, not-for-profit, membership association serving business, industry, government, and consumers
- Develops standards designed to:
  - enhance public safety and health
  - advance the quality of life
  - help to protect the environment
  - facilitate trade
- CSA's standards development process is accredited by Standards Council of Canada
- CSA standards are **voluntary documents**; only when referenced by government or a regulatory authority is their compliance mandatory

## Standards development methodology

- CSA members develop standards content; staff facilitates the accredited development process
- Decisions are made by consensus and balanced stakeholder representation
- Committee members are selected to represent various interest groups most likely to be affected by the standard



## Petroleum and Natural Gas Industry Systems (PNGIS) Program

- CSA Group has developed an internationally-recognized portfolio of standards-based solutions that have served the needs of the petroleum and natural gas sectors for over 45 years.
- The program currently comprises of 8 distinct technology areas



## Background

- In the mid 2000's, PNGIS program stakeholders decided to develop standards for Security and Emergency Management
- Security Management was deemed to be a higher priority resulting in publication of the CSA Z246.1 Standard in 2009
- Work then began in the area of Emergency Management and a number of options were investigated to determine next steps
- A Technical Subcommittee (TSC) was organized to develop a draft and an initial meeting held in April 2012



## Z246.2 TSC members

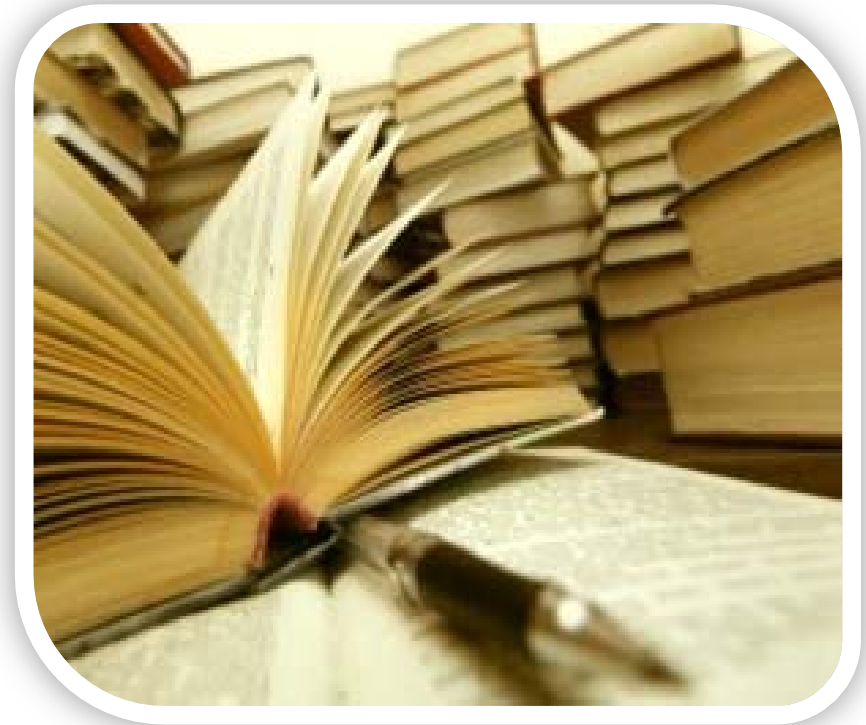
- TSC consists of three groups of subject matter experts:
  - Industry users
  - Government representatives
  - General interest groups
- Committee made up of upstream, midstream and downstream users, including gas and oil operators
- Government representation from both provincial (2) and federal (2) levels





## Seed documents

- CSA Z731-03
- CSA Z246.1-09
- CSA Z1600-08
- ERCB Directive 71
- BC OGC Regulations
- NEB April 2002 all company letter
- NFPA 1600
- Numerous others ISO and international standards





## Scope

While the scope of the standard is currently in draft form and subject to change, the standard will:

- Focus on preparedness and response
- Follow an all-hazard approach
- Provide guidance on protection of People, Environment and Property

## 1.1

This Standard establishes criteria for emergency preparedness and response for the Petroleum and Natural Gas industry.

Figure 1 - Petroleum industry systems

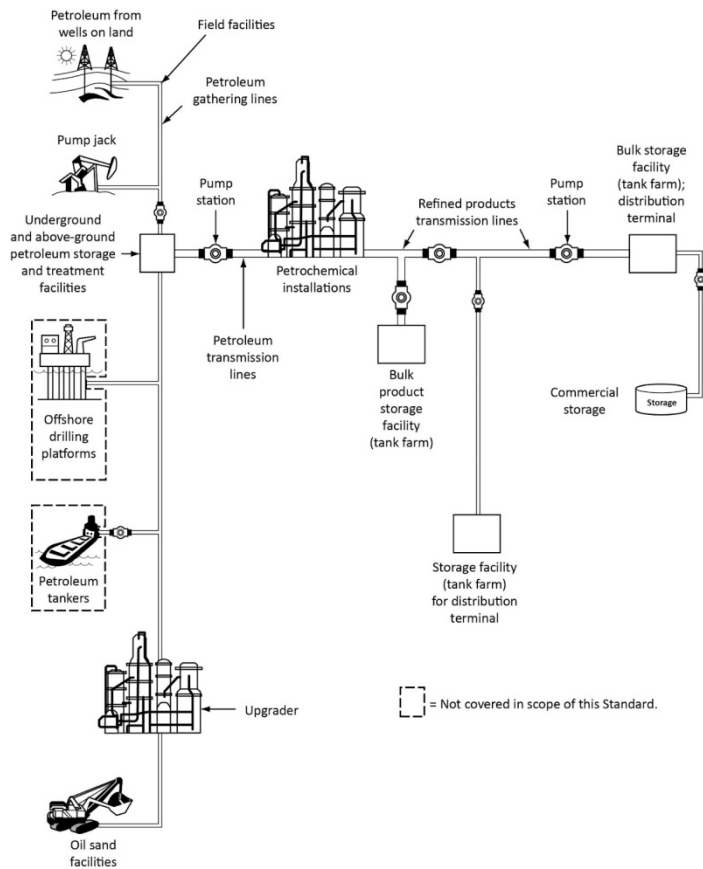
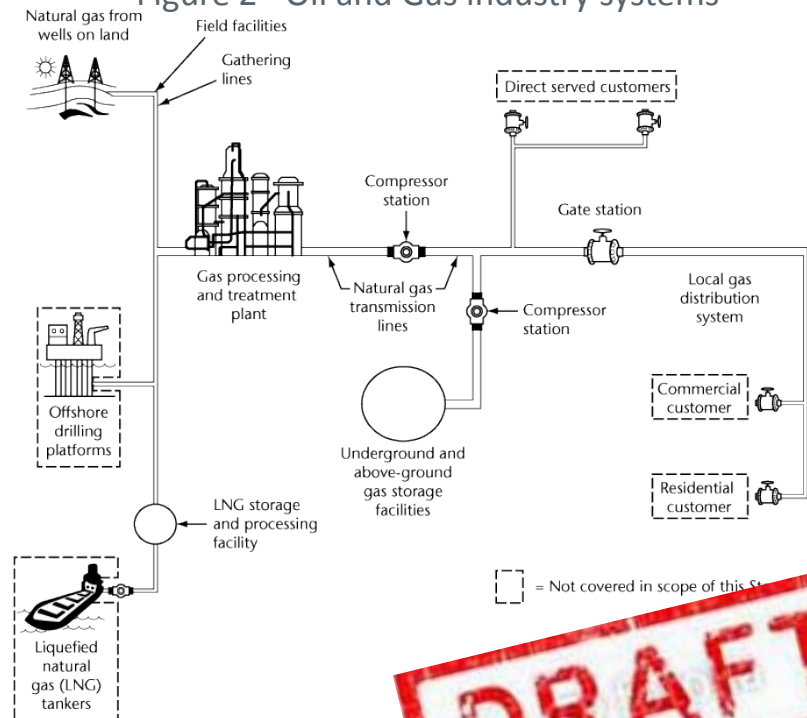


Figure 2 - Oil and Gas industry systems



**DRAFT**

Figures taken from CSA Z246.1-09

## 1.2

This Standard applies to all petroleum and natural gas industry systems (as illustrated in Figures 1 and 2), including

- (a) pipeline systems handling
  - (i) oil;
  - (ii) gas;
  - (iii) oil-field water;
  - (iv) liquid products;
  - (v) multi-phase fluids;
  - (vi) slurries; and
  - (vii) system supports, including:
    - (1) meter stations;
    - (2) compressor stations;
    - (3) pump stations;
    - (4) tank farms;
    - (5) terminals; and
    - (6) all assets that support Items (1) to (5);



## 1.2 Cont...

- (b) liquefied natural gas (LNG) production, storage, and handling facilities;
- (c) storage of hydrocarbons in underground formations;
- (d) petrochemical installations, including:
  - (i) refineries;
  - (ii) gas processing plants;
  - (iii) liquefied petroleum gas plants;
  - (iv) synthetic natural gas plants; and
  - (v) coal gasification plants; and
- (e) oil and gas exploration, development, production, treatment, processing, and storage operations not covered in Items (a) to (d).
- (f) oilsands facilities

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## 1.3

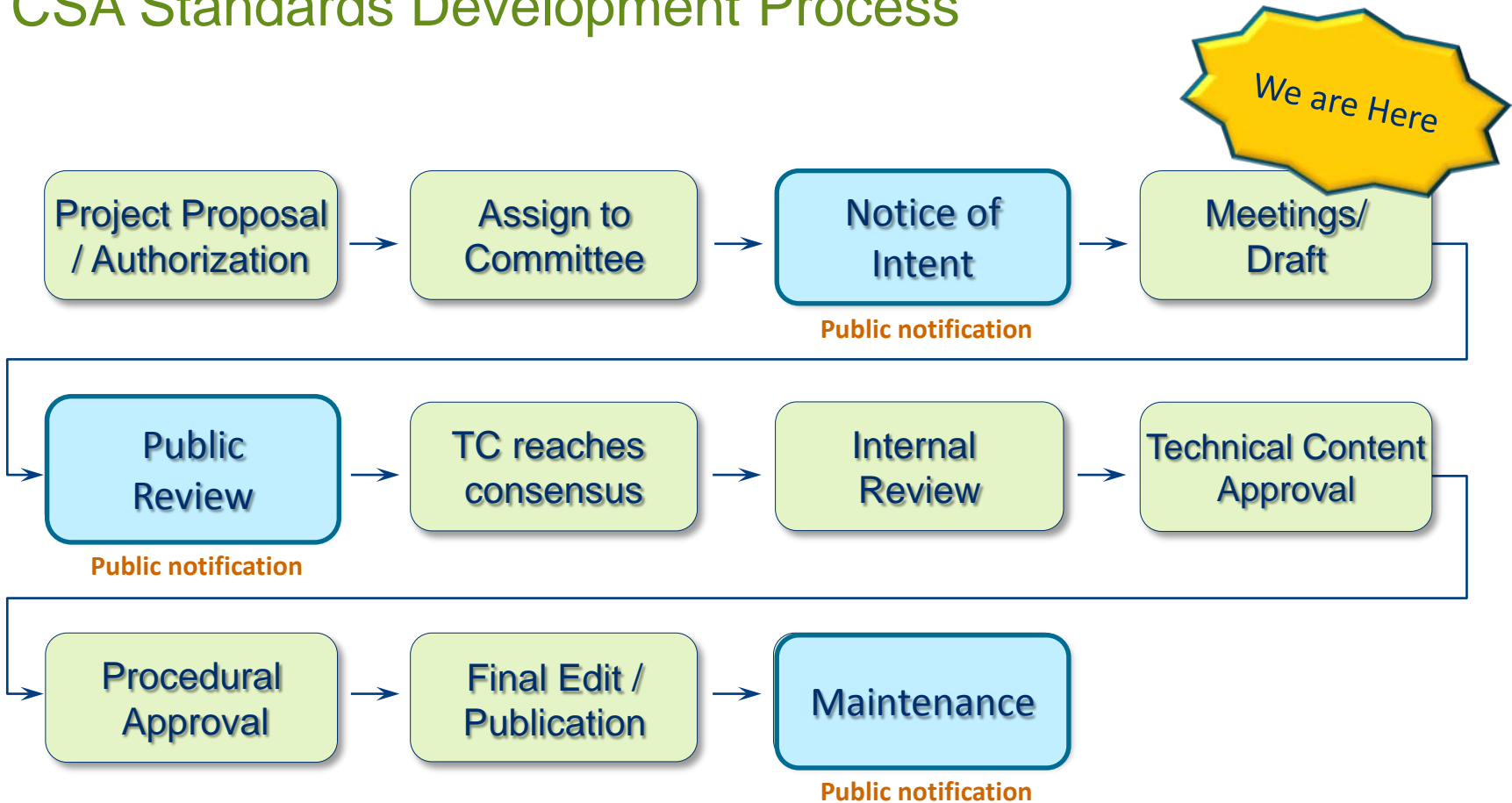
This Standard does not apply to offshore petroleum and natural gas platforms.

## 1.4

The requirements of this Standard are applicable to all operators, regardless of the size or number of their assets.



## CSA Standards Development Process



Thank You!

# Questions?

