

NORSOK STANDARD

SYSTEM REQUIREMENTS
METHANOL INJECTION
SYSTEM NO. 42-10

P-SR-005
Rev. 1, December 1994

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1. FOREWORD

This standard has been developed by the NORSOK Standardisation Work Group.

2. SCOPE

3. NORMATIVE REFERENCES

NORSOK Standard

P-CR-001

Process Design

4. DEFINITIONS AND ABBREVIATIONS

4.1 Definitions

4.2 Abbreviations

5. FUNCTIONAL REQUIREMENTS

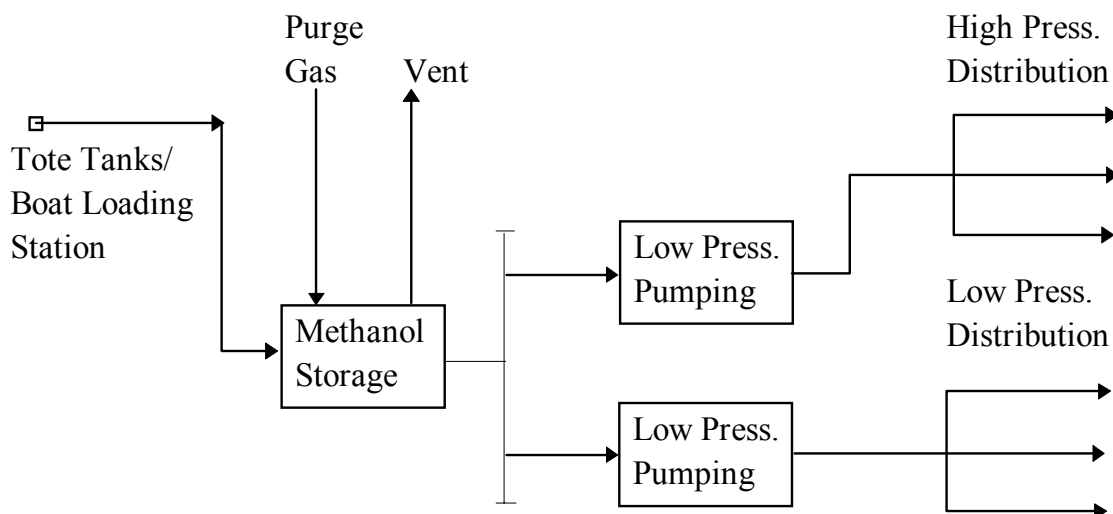
5.1 General

Storage and injection of methanol to prevent and dissolve hydrates in production oil and gas wells, platform and subsea hydrocarbon systems, and as required in other process applications.

5.2 Products/Services

Not Applicable.

5.3 Equipment/Schematic



5.4 Performance

Product Quality
System Capacity

Industrial Methanol

Capacity (m³/hr)
Disch. Press (barg)

HP-Pump(s) LP-Pump(s)

Storage Capacity

Use of methanol will typically be by batch treatment and/or continuous injection. Storage requirements will be determined on the basis of 7 days of continuous use or the single largest volume involved in a batch treatment operation.

5.5 Regularity

5.5.1 Regularity

95 %

5.5.2 Sparing

Sparing pumps.

5.6 Process/Ambient Conditions

Supply to the system will be industrial grade methanol from tote (transportation) tanks (4 m³) or boat loading connection.

5.7 Operational Requirements

5.7.1 Control and Monitoring

From local common panel and field instruments. Indication of storage tank level shall be available at tote tank/boat loading station.

5.7.2 Pumping capacities

Shall be adjustable at pump for low capacity injection pumps. Facilities shall be provided for rate calibration.

5.8 Maintenance Requirements

All major components shall be easily accessible for maintenance.

5.9 Isolation and Sectioning

Isolation valves shall be provided to allow maintenance on individual components with minimal impact on operation of the rest of the system.

No sectioning of the system shall be implemented.

5.10 Layout Requirements

5.10.1 Piping

Piping to storage vessel shall be self draining and without pockets. Distribution piping and number of flange connections shall be minimized.

5.10.2 Tote tank/Boat loading station

Hose couplings shall be unique for service. Location to enable gravity feed to storage vessel. Tote tank area shall allow direct lifting on/off by platform cranes.

5.10.3 Storage vessel

Volume shall be minimized and vessel located to allow gravity feed.

5.10.4 Pumps

Shall be mounted on common skid located adjacent to the storage vessel.

5.10.5 Safety

Pump skid and storage vessel should be located away from other equipment/systems containing ignition sources to minimize the risk for escalating explosion/fire hazards.

Methanol is a hazardous chemical and facilities shall be provided to minimize handling requirements and exposure to personnel.

5.11 Interface Requirements**5.11.1 Water**

All drip trays shall be sprayed with water to dilute methanol from spill and leakage.

5.11.2 Nitrogen

Storage vessel shall be purged with N₂.

5.12 Commissioning Requirements

None.