

S-002 Working Environment, 2025 Public Enquiry

Torbjørn Turander
Standard Morgen 03. februar 2025





Revisjonsteam for NORSOK S-002



Ellen K. Jensen
Equinor



Trond Schei
ConocoPhillips



Nalini Superamaniam
Kallerdahl, Vysus Group



Fung. Leder

Torbjørn Turander
Equinor



Observatør

Sølvi Sveen
Havtil



Jakob Nærheim
Ekspertgruppe HMS



Aslaug Skogesal
Aker BP



Sunniva Øverland
NOBLE



Kristin Bleie
LO



Kari-Ann Birkeland
Standard Norge



S-002 development rules – A-001 and ISO/IEC Directives Part 2

Norsok A-001 refers to the ISO rules of standardisation in [ISO - Directives and Policies](#).

Part 2, Principles and rules for the structure and drafting of ISO and IEC documents, includes writing rules. Chapter 7, 8, 9 and 10 are particularly relevant.

Chapter 5 provides principles for structure and writing (performance principle, verifiability, consistency).

7 Verbal forms for expressions of provisions

- [7.1 General](#)
- [7.2 Requirement](#)
- [7.3 Recommendation](#)
- [7.4 Permission](#)
- [7.5 Possibility and capability](#)
- [7.6 External constraint](#)

8 Language, spelling, abbreviated terms, style and basic reference works

- [8.1 Language versions](#)
- [8.2 Spelling reference works](#)
- [8.3 Spelling and abbreviated forms of names of organizations](#)
- [8.4 Abbreviated terms](#)
- [8.5 Linguistic style](#)
- [8.6 Inclusive terminology](#)

9 Numbers, quantities, units and values

- [9.1 Representation of numbers and numerical values](#)
- [9.2 Representation of numbers, symbols for variable quantities and numerical values for programming languages, pseudo-code and mark-up languages](#)
- [9.3 Quantities, units, symbols and signs](#)
- [9.4 Values, intervals and tolerances](#)

10 Referencing

- [10.1 Purpose or rationale](#)
- [10.2 Permitted referenced documents](#)
- [10.3 Presentation of references](#)
- [10.4 Undated references](#)
- [10.5 Dated references](#)
- [10.6 References in a document to itself](#)

S-002:2025 Public Enquiry document

Main changes compared to 2018
revision





Foreword

Changes from the previous revision are based on user experiences and comments received:

- Requirements in the normative part of the document now include text that was previously in the informative annexes B, C and D;
- Significant amendments to annexes B, C and D;
- The inclusion of a new sub-section on radiation;
- Modification projects have been given a clearer set of requirements;
- Clearer differentiation between “shall”, “should”, “may”, “can” provisions, examples and notes;
- Updates to tables and data sheets, which are now available in formats which make them easier to use;
- A requirement for system for removal of mercury has been included.



Terms and definitions - summary of main changes

Hearing comments on inconsistency in type of terms included have been addressed. Fewer terms are included.

- New definition of 'closed system'

In general:

- Terms should only be defined if it impacts the understanding of a requirement
- Definitions should be aligned with other ISO standards
- Avoid generating new definitions



5 Management process - summary of main changes

- Minor changes
- Tidying of language and clear distinction between Shalls, Shoulds, Mays and Cans.
- Requirement included about handover report from project organisation to operations.
- 5.7 Verification - validation is removed
- 5.8 Experience transfer – changed from a one off workshop to a continuous process
- 5.8 requirements for modification projects included
- 5.9 Requirement removed “Package suppliers shall have an ongoing process for identifying problem and improvement areas, as well as verifying solutions against requirements and documenting this.”



6 Area design - summary of main changes

Tidying of language and clear distinction between Shalls, Shoulds and Cans.

- 6.1 - Added requirement regarding handwashing and toilet facilities
- 6.2.1 - New and clearer requirement regarding permanent access
- 6.3.2 – New chapter on design of control rooms and control cabins
- 6.3.3 Drilling and wells – New and revised requirements regarding chemical exposure and handling



7 Working environment factors design - summary of main changes

- 7.2 Noise and vibration
 - New requirement regarding tonal noise in “quiet areas”
 - Reverberation times requirements changed back to v.4 (2004) of S-002
 - New section on evaluation of flow induced noise for gas piping
 - New section on evaluation of noise in modification projects
 - Vibration isolation requirement made clearer
- 7.3 Chemical exposure
 - References to legislation removed
 - New ‘shall’ requirement on system for removal of mercury
 - New requirements related to benzene, diesel exhausts and pigging
 - Requirements for cleaning rewritten and collected



7 Working environment factors design - summary of main changes

- 7.4 Lighting
 - New shall requirement regarding LED
 - Revised requirement regarding emergency lighting
- 7.5 Radiation (new section)
- 7.6 Indoor Climate
 - In dialogue with Norsok H, hope to move most of the design requirements to H standard and functional requirements in S standard.
- 7.7 Physical ergonomics
 - Separated from HMI
 - Some requirements for doors and operator chairs from v.4 of S-002 reintroduced
 - Valve access requirements introduced



7 Working environment factors design - summary of main changes

- 7.8 HMI
 - Separate chapter
 - Examples of control rooms and cabins included
 - Normative reference to EEMUA 191 included
- 7.9 Outdoor operations
 - Safety equipment requirement moved from here to 7.3 Chemical exposure



8 Working Environment Area Limits

- Table vertical and horizontal clearances and distances
 - min or max requirements tidied
 - 700mm space for working is now diameter
 - Distance between handwheel/wrench on valves and an obstruction – added comment regarding finger operated valves
 - The centre height of control devices – min 1100 added
 - Maximum variation in platform level without intermediate step, now 300



8 Working Environment area limits

- Table Working environment area limits
 - v.4 version of S-002 vibration limits and categories reintroduced
 - New temperature requirements for helicopter hangar
 - Noise requirements for helicopter noise in day sleeping cabins, $L_{p,AS,max}$ unit included
 - Notes on cabin temperature and mud processing room noise removed



Annex A - summary of main changes

Major changes to normative Annex A

- A2 - minor changes
- A3 - Manning study requirements are changed significantly. New focus is to give input to WE analysis.
- A4 - New section related to Package follow-up, list of analysis included, requirements are moved from informative annex
- A5 - Noise section changed significantly, list of analysis included, some requirements moved from informative annex



Annex A - summary of main changes

- A6 Ergonomics section - some changes and updated with more modern evaluation methods
- A7 Chemicals - clearer requirements that the process stream, H₂S, mercury, benzene and diesel exhaust shall be included in assessments
- A8 Weather protection – minor changes
- A9 HF - Major re-write, list of analysis included, some requirements are moved from informative annex
- A10 WE Design review – minor changes
- A11 WEAC - requirements changed to focus more on verification and datasheet is remade



Informative Annexes

- B Packages and machinery – some text moved to normative Annex A. Significantly rewritten and shortened. Checklist updated.
- C Human factors –. New Annex C rewritten from scratch. Significantly shortened. Some text from old Annex C moved to normative Annex A
- D Noise – some text moved to normative Annex A. Significantly re-written and shortened. New noise datasheet template.
- E Chemicals - Changes hopefully leading to better logic in applying the method. Tables updated
- F Job hazard - minor changes
- G Ergonomics - Changes hopefully leading to better logic in applying the method. Tables updated
- H Weather protection - Changes hopefully leading to better logic in applying the method. Tables updated



67 83 86 00

info@standard.no

standard.no