

# **Proposed Outline for U.S. NWIP to restart work on ISO 19884, Gaseous hydrogen — Cylinders and tubes for stationary storage**

## **1 Scope**

This document specifies the requirements for the design, manufacture and testing of pressure vessels for the stationary storage of gaseous hydrogen of up to a maximum water capacity of 15 000 l and a maximum allowable working pressure not exceeding 110 MPa.

## **2 Normative references**

Update

## **3 Terms and definitions**

Use standard definitions in ISO 10286 in addition to terms and definitions specific to this standard.

## **4 Specified service conditions**

Clarify and Update

Define expectations between manufacturers declared performance versus minimum expected performance  
Harmonize reliability and validation expectations and goals to guide further work

## **5 Additional Considerations**

Clarify installation sensitive issues with multiple jurisdictions  
Communication of safety issues

## **6 Associated Safety Equipment**

Clarify and define expectations of safety equipment

## **7 Information to be recorded**

No change expected, review for jurisdictional requirements

## **8 Material properties**

Clarify as needed, review for Sec 4.0 requirements

## **9 Design requirements**

Clarify requirements, emphasizing a performance basis.  
Review DIS comments and integrate within new scope  
Define common terms and methods  
Evaluate operational environment within new scope

## **10 Construction and workmanship**

Clarify requirements  
Review DIS comments and integrate within new scope  
Standardize materials and manufacturing approaches to new scope

## **11 Qualification of new designs**

Clarify performance requirements for validation of materials and finished cylinders, such that currently approved pressure vessel materials and designs will have an opportunity for qualification.  
Review requirements to Sec 4.0 goals  
Review DIS comments and integrate within new scope  
Review and clarify QA management

## **12 Production and batch tests**

Review DIS comments and integrate within new scope and Sec 4.0 goals

## **13 Markings**

No change expected, review for jurisdictional requirements

## **14 Preparation for dispatch**

No change expected, review for jurisdictional requirements

## **15 ANNEXES**

Review under new scope and Sec 4 goal  
Address DIS comments