Record 14-345 April 18, 2022 proposal

**UG-101 PROOF TESTS TO ESTABLISH MAXIMUM The current UG-101 (a)(1) – (a)(4) is**

**ALLOWABLE WORKING PRESSURE Information only**

*(a) General*

*(1)* The maximum allowable working pressure for

vessels or vessel parts for which the strength cannot be

computed with a satisfactory assurance of accuracy (see

U-2) shall be established in accordance with the requirements

of this paragraph, using one of the test procedures

applicable to the type of loading and to the material used

in construction. Production vessels or vessel parts that

utilize the results of a proof test shall comply with all applicable

construction rules of the current edition and applicable

addenda of this Division.

*(-a)* Consideration of the use of proof‐tested construction

specifications based on past editions of this Division

and documented in the original Proof Test Report

requires that the Manufacturer determine whether or

not there have been subsequent revisions to this Division

that apply and must be evaluated. This evaluation may

void the Division acceptability of establishing the vessel

MAWP by proof testing (e.g., UCS-66, Part UHX, Mandatory

Appendix 13, etc.). However, if applicable revisions

are found, and it is judged that a new proof test is not required,

the Manufacturer, using Duplicate and Similar

Parts rules in (d) as guidelines, shall prepare a Supplement

to the original Proof Test Report documenting any

changes to the construction requirements and to the Manufacturer’s

Data Report. The following should be noted:

*(-1)* The production vessel material need not be

identical with that used for the original proof tested vessel,

but material equivalence must be confirmed and documented.

*(-2)* The MDMT established by current Division

rules may be different from that originally assigned but

must be suitable for the nameplate MDMT marking coincident

with the established MAWP.

*(-3)* The Supplement to the original Proof Test

Report shall be made available to the Inspector prior to

the start of construction.

*(2)* Provision is made in these rules for two types of

tests to determine the internal maximum allowable working

pressure:

*(-a)* tests based on yielding of the part to be tested.

These tests are limited to materials with a ratio of minimum

specified yield to minimum specified ultimate

strength of 0.625 or less.

*(-b)* tests based on bursting of the part.

*(3)* Safety of testing personnel should be given serious

consideration when conducting proof tests, and particular

care should be taken during bursting tests in (m)

below.

*(4)*The Code recognizes that Manufacturers may

maintain control of proof test reports under different

ownerships than existed during the original application

of the proof test. When a Manufacturer is acquired by a

new owner(s), the proof test reports may be used by

the new owner(s) without retesting, provided all of the

following are met:

*(-a)* the new owner(s) takes responsibility for the

proof tests;

*(-b)* the Proof Test Reports reflect the name of the

new owner(s);

*(-c)* the Proof Test Reports indicate the actual test

was performed by the former Manufacturer;

*(-d)* the Proof Test Report(s) is acceptable to the

Inspector of the new owner(s) as indicated by his/her signature

on the Manufacturer’s report of the test.

Add new para. to UG-101(a)(5)

Below Red responds to the comments and disapprovals on Ballot 22-727, except for one negative suggesting that suggested another item be added to the scope of this record to address periodic retesting of proof testing reports, which is not part of the scope of this item.

(5) Manufacturers, owned by the same entity, may share proof testing report(s) when ~~each~~ ~~Manufacturer meets~~ the following conditions are met:

(-a) each Manufacturer maintains a Quality Control System (see Appendix 10) which shall describe the effective operational control and authority for technical implementation of shared Manufacturer’s proof testing reports, fabrication drawings and procedures for assembly of the vessel, when necessary;

(-b) fabrication drawings and welding, brazing and bolting procedures used by each Manufacturer are identical to those used to produce the proof testing report(s) within the requirements stated in UG-101;

(-c) each Manufacturer takes full responsibility for each shared proof testing report and documents this, indicating the specific proof test performed by the original qualifying Manufacturer and the location where the proof test was performed.

(-d) each Manufacturer submits the shared proof test report(s) to the Inspector for acceptance;

(-e) welding and brazing procedures, qualified to ASME Code Section IX, may be qualified at each Manufacturer’s location, but shall be identical, with respect to variables used, to the procedures used to weld or braze the proof tested object for a shared proof testing report.

(-f) when the original qualifying Manufacturer no longer holds a valid ASME U Certificate of Authorization or has a name change, the shared Manufacturer’s proof testing report(s), previously been accepted, remain valid;